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# MAN, RACE AND DARWIN



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# Man, Race and Darwin

PAPERS  
READ AT A JOINT CONFERENCE OF  
THE ROYAL ANTHROPOLOGICAL INSTITUTE OF  
GREAT BRITAIN AND IRELAND  
AND THE  
INSTITUTE OF RACE RELATIONS

*With an introduction and epilogue  
by Philip Mason*

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## Preface

A SYMPOSIUM organized by the Royal Anthropological Institute and the Institute of Race Relations on Race and Race Relations in the light of modern knowledge was held at the Royal Anthropological Institute on 7th, 8th and 9th January, 1959, under the chairmanship of Sir Kenneth Grubb, C.M.G., LL.D. The following papers were read and discussed; their revised versions form the substance of this book.

### The Race Concept

Professor Lancelot Hogben, F.R.S., Professor of Medical Statistics, University of Birmingham

### From Darwin to Mendel

N. A. Barnicot, B.Sc., Ph.D., Reader in Physical Anthropology, University College, London

### The Biological Effects of Miscegenation

G. Ainsworth Harrison, M.A., D.Phil., B.Sc., Lecturer in Physical Anthropology, Department of Anatomy, University of Liverpool

### A Geneticist's View of Human Variability

J. A. Fraser Roberts, M.A., M.D., D.Sc., F.R.C.P., Director, Clinical Genetics Research Unit (Medical Research Council), Institute of Child Health

### Race and Intelligence

Professor P. E. Vernon, D.Sc., Ph.D., Professor of Educational Psychology, Institute of Education, University of London

### Race Relations: A Psycho-analytical Interpretation

Marie Jahoda, Ph.D., The Nuffield Research Fellow, Research Unit, Brunel College of Technology

### Race and Sociology

D. G. MacRae, M.A., Reader in Sociology, London School of Economics

### Race Relations in Modern Britain

Maurice Freedman, M.A., Ph.D., Reader in Anthropology, London School of Economics

### Darwin and Durham: Some Problems of Race and Politics in the Multi-racial Societies of the British Commonwealth and Colonial Empire

Professor Kenneth Kirkwood, M.A., Rhodes Professor of Race Relations, University of Oxford

Recd. from Mr. A. R. R. and Mrs. R. R. R. on 12.12.59 for 52.10.59

Race, Tribalism and Nationalism in Africa

Lucy P. Mair, M.A., Ph.D., Reader in Applied Anthropology, London  
School of Economics

Race, Nationalism and Communalism in Asia

Hugh Tinker, M.A., Ph.D., Reader in the History of South East Asia,  
School of Oriental and African Studies, University of London

General Summary of the Symposium

Philip Mason, C.I.E., O.B.E., Director of the Institute of Race  
Relations

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## Introduction

*by Philip Mason*

SOME four years ago a reviewer said that a tentative venture of mine into the field of race relations might just as well not have been written; the subject was sociological and—he implied—only a professional sociologist could make a valid approach to it. Hardly anyone would uphold that view today. There is now, on the other hand, a wide agreement that the historian, the psychologist, the statistician, the biologist and the geographer have contributions to make as well as the social anthropologist and the sociologist; help may also be derived from the economist, the lawyer and from experts in industrial welfare and public administration. The point is expressed by Dr. Michael Banton, himself one of the most distinguished sociologists working on race relations in Britain, as follows:

It is helpful . . . to consider the study of race relations as an applied social science . . . (It) has no pure theory of its own but exists to bring together all that other sciences can contribute to the solution of problems within its own special field . . .

But although today most of those interested in race relations would accept this kind of view, little practical expression is found for it in Britain. In the United States it is a familiar and everyday concept that a problem of race relations should be tackled by a team of research workers, each with a separate contribution to make; it is not so here. This is partly a matter of money. Most Englishmen at heart think it best that their country should muddle along and take problems as they come rather than think them out in advance; they do not really believe in research except in chemistry, engineering or medicine, where tangible results can be achieved. And because of this still profoundly empirical British attitude it is not easy to get money even for a modest research project by one scholar. Apart from finance, however, our scholars are themselves individualists, partly by temperament but partly because they are compelled in spite of themselves by alien forces; almost every one would ruefully agree that, if only time permitted, he would benefit by knowing more of what others were doing in connected fields of work.



These considerations form one part of the background to the collection of papers in this book. The other part concerns the centenary of the publication of *The Origin of Species*. The modern interest in centenaries may not always strike one as particularly rational; indeed, the orthodox Hindu used to regard one hundred as an inauspicious number, to which one hundred and one, or one hundred and eight, were to be preferred for ceremonial or propitiatory purposes. And to celebrate the centenary of a birth or death has seldom much justification because to be born or to die is not really a matter of distinction. But *The Origin of Species* made a radical change of thought, not only in the field of biology, not only among theologians, philosophers and geologists, but in almost every aspect of life. There is for instance the startling growth of imperialism in the latter part of the nineteenth century; Britain until about 1880 had been deeply concerned to avoid further imperial commitments. Suddenly all this was changed and imperialism was born almost overnight, and with it the mystique of selfless service to the Empire and the 'white man's burden'. What part did Darwinism—or what was thought to be Darwinism—play in the picture of world affairs we associate with Kipling, Joseph Chamberlain and Milner?

Certainly by the end of the century neither history nor economics could be written as they would have been before 1858, and already, in the far wider field of the assumptions embodied in everyday speech, a revolution as profound as the Copernican had taken place. To celebrate this centenary is then not irrational; after three generations, the time had come to look back on this revolution and consider the part it had played in thought about race, 'race' being here used as a concept of difference between peoples that is becoming increasingly a major influence in man's destiny.

The Royal Anthropological Institute approaches the study of race from two angles, that of social and cultural and that of physical anthropology. These studies are linked by an accident of nomenclature but are surely at least as distinct from each other as, say, history and economics. But both are part of the larger study of man and both have been directly affected by Darwin's thought. The Royal Anthropological Institute therefore took the opportunity in April 1958 of sending fraternal good wishes to the newly-born Institute of Race Relations and suggested that the two Institutes should combine to hold a conference on the development of thought about race since Darwin; at this, it was suggested, papers would be

read by exponents of the various disciplines which are of interest to race relations. The Institute of Race Relations was honoured by the invitation; a small joint committee was formed, a list of subjects drawn up and a distinguished band of scholars invited to contribute papers or comment on the papers of others. Inevitably, several persons who should have been included were already engaged; further, the committee deliberately tried to confine itself to British contributors.

It soon became clear that the subjects in which we on the committee were interested fell into three groups. In the first, we would include the contributions of biologists and geneticists, dealing with both the development and the present state of thought on their subjects. The second group is not so easy to define, but it would include those concerned with generalized thought about the way people behave, the psychologists and the sociologists; here, for entirely practical reasons, there was an omission. We included a paper on the growth of sociological thought about race and a sociologist's account of one racial situation, that in Britain today; we included two papers by psychologists, but both of these described the situation as it appears today. One was concerned with the explanation of social phenomena provided by deep analysis, the other with intelligence testing and psychological statistics; to complete the pattern, we ought to have added a paper on the development over the past century of thought about the psychological aspects of race. But we did not know of anyone competent to produce such a paper who was available to prepare and read it.

The third group of papers was concerned with the political and administrative problems which are thought to be affected by racial differences. Obviously there are far too many such situations in the world today to be dealt with at all exhaustively in a conference of this kind. We therefore concentrated on the multi-racial countries of the Commonwealth, and on an attempt, by two parallel sketches, one of Asia and one of Africa, to show the extent to which difficulties very like those thought to be due to physical qualities arose from differences clearly not physical but cultural, or perhaps more specifically religious or linguistic.

The nature of the conference—which soon, though by no formal decision, came to be called a symposium—would to some extent be affected by the audience; invitations were sent to a wide variety of people who were not specialists in any of these fields—journalists,

the staff of the B.B.C., colonial administrators, diplomats, representatives of various groups organized to educate or mould opinion. There was eager and often fruitful discussion, but the spoken word is usually disappointing in print and the committee decided against perpetuating the comments and discussions except in the form of an epilogue which would bring out some of the main trends of discussion.

But it may be helpful at this earlier stage to outline the continuous thread of thought which runs through the printed papers. This may be particularly helpful in the case of the biologists, whose material is occasionally somewhat intractable to a layman. And it is never easy, as one moves forward through a forest of detail even when carefully ordered, to preserve a sense of direction. Yet there is in these very various papers a common purpose and a discernible current.

In Darwin's time, there was still argument as to whether man was one species. Negroid, Mongoloid, Caucasoid—terms of this kind were used—but there was little agreement as to whether there were three species or four or more. It was suggested that a cross between these various kinds of man might be infertile or produce some biologically defective results—though one cannot help wondering whether those who held such views had travelled very widely or used their eyes when they travelled. Darwin himself, however, was wiser than some of his more enthusiastic admirers; he suspected that the disabilities of 'half-breeds' were social rather than physical. He did not believe that the evolution of animal life, let alone of human creatures, was the result solely of natural selection by the elimination of the unfit and the survival of the fit. This might be the only method among plants; among animals, sexual selection played a part, the male best equipped for combat or display securing the most desirable females and producing most progeny. This applied to the human animal too, but he perceived that there were social practices, such as infanticide or child betrothal, which interfered with the free operation of the machinery which had been so effective in producing the peacock and the red stag.

A change comes, then, over the whole process when the human mind appears on the cosmic stage; since Darwin's day, anthropology has strengthened this point, revealing that Australian aboriginals, peoples at a stage of development that would generally be called primitive, have most complex kinship rules which control and limit

their sexual choice. Darwin ended *The Origin of Species* with the recognition that 'as far as the highest part of man's nature is concerned, there are other urgencies more important' than the struggle for existence—a point considerably elaborated by Dr. Julian Huxley in his Romanes Lectures on Evolutionary Ethics. Natural selection directs human evolution up to a point at which other factors intervene—factors that may be social, moral, aesthetic, economic or religious.

Man, then, is one species, but differs from others in the machinery that governs his development. For the biologist, he is in one sense a wild animal, because his breeding cannot be controlled and directed as a domesticated animal's can be. But he is more widely distributed than any other wild species and shows greater adaptability to varying conditions—partly because it is a distinguishing mark of this species to spend some effort in mastering the environment. It is not therefore surprising that there are local strains or races which are physically distinguishable; the biologist incidentally prefers as a rule to speak of a 'population', avoiding 'strain' or 'race' as question-begging. It is now clear that it is from one stock with one ancestry that these physical differences have evolved during the passage of many millennia. The process, until quite recent times, was on the whole one of divergence between peoples of common ancestry; they would become isolated, perhaps by some geographical factor or factors, and grow different; perhaps a movement of population would then take place and there would once more be mixing. As to the stages at which divergence occurred, there is considerable uncertainty and no safe reason to regard any living strain as more primitive than others. There are many physical differences—but there has been much mixing in the past and there are a great many intermediate types.

With other forms of life, it is possible to experiment and observe the results of crosses between populations. This is obviously not possible with human beings in quite the same way, and one of the few conclusions the biologists have reached with certainty about crosses between populations is that it is not safe to suppose that the results of one experiment will apply in another experiment between a different pair of populations. Some crosses display what is called hybrid vigour; others are not so well adapted to a variety of conditions as either of the parent strains. Some hybrids are intermediate between the parent strains and do rather less well than either parent in that parent's own environment—but rather better than either

parent would do in the environment of the other. The biologist's answer to questions about miscegenation between different human strains is therefore likely to be that he does not know; taking into account the mixture that has happened in the past, he can see no reason why the result of any human cross should not be biologically successful. On the other hand, he would certainly not commit himself to the likelihood of any improvement. To this, the unbiased but observant traveller will add that the world contains a number of recently mixed populations and that when these do not labour under a burden of social disapproval they seem to show a high degree of vigour and adaptability.

The differences between populations are none the less real. They are of two kinds, which may be called for convenience quantitative and qualitative, though the biologist has other names which for the general reader are more confusing. The qualitative differences, transmitted usually by a single gene, provide the most exact information regarding differences between populations and are the easiest for a geneticist to trace. Yet in most cases they seem to have little survival value to the species. Blood groups are a good example of qualitative differences; if one set of groups is taken as an example, a person must belong to group A or group B or AB or O; he cannot belong a little more to A, a little less to B, than someone else. It is quantitative differences, such as height and intelligence, transmitted by a number of genes, which are more obviously of importance both for survival and for those purely human purposes whose existence Darwin recognized. Here, there are so many genes involved that any one individual is far more likely to be near the middle of the range of what is possible than near either extreme. And the difference between the averages of any two populations is usually much less than the range of difference within either population. The average difference of height between large random samples of, say, English and Japanese may at a guess be two or three inches, but the range within either group will be of the order of two feet.

Intelligence, like height, is a quantitative factor depending on a number of genes, but not so easily measured. It was hoped at one time that it would be possible to devise tests that would isolate native wit, which was taken to be dependent on heredity, from the sum of acquired knowledge and skill in its use, in which obviously environment plays a large part. But though intelligence testing will reveal very clearly differences in native wit—what might be called

teachability—as between people with more or less the same background, no means has yet been found of comparing the intelligence of people with completely different backgrounds—cultural, climatic or economic. This makes it impossible to speak with any accuracy of differences in average intellectual levels as between different races. When averages taken over large samples are considered, there can never be an absolutely fair test because the backgrounds are never identical. Where backgrounds approximate sufficiently for anything like a fair comparison to be made—it is never *quite* fair—results emerge which are very like those regarding height; differences between racial averages are very much less than the range of differences between individuals within each race. In the United States, the nearest approach to a fair comparison between white and Negro is in the public school system of the Northern States; here there is a slight but statistically significant difference in averages in the white favour. But on the one hand there are also differences in home backgrounds and the incomes of parents; on the other there is still a handicap to the Negro in that he is not expected to do well at school. From Barbados, a rather greater difference is reported, but in favour of the Negro, and this too might be accounted for by social rather than biological reasons. Nor is it really sensible to argue as to future capabilities from past achievements; to argue that Australian aboriginals are not intelligent because they have so far contributed nothing to the higher mathematics is like saying that Englishmen are so stupid that they can't talk Russian.

Mankind then is one species and there seem to be no scientifically ascertainable reasons for supposing that there is any strain or stock of man from which there will not be found individuals who can be taught any skill or aptitude of the kinds which are widely distributed among other strains. The bushmen of the Kalahari do not usually play billiards any more than cockneys usually track ostriches, but there is no reason to suppose that there are not in either population some individuals who can be taught the skill of the other if caught young enough, and it is silly for either to look down on the other because of a skill which the other has never had occasion to acquire. Aptitudes for special skills may be more common in one population than another; indeed it would be surprising if they were not. But it would, in the present state of knowledge, be still more surprising if the range of achievements between individuals, given equal training, was not much greater than the difference between averages.

Why, then, are we confronted in the world today with the obstinate desire in the Southern States for segregation in schools; in South Africa with refusal to share public transport—and much more than that; with landladies in Britain who have no room available when the applicant is an African or a West Indian? Prejudice is not the result of a process of reasoning. It meets a need either social or psychological, or a mixture of the two. In a society not in course of change, it may serve a whole people as an excuse for their dominance of another; where the social need for prejudice is less apparent, it may arise in an individual in the first place from a failure to achieve personal integration or a balanced relationship with society. From a profound dissatisfaction with the self there may develop an attempt to lose personal identity in a group. And if uncertainty is still felt about the success of this identification, the virtues of the group and its values, the rejection of other groups and other values, will be loudly proclaimed. Peering out at a frightening world from the fortress of an ego weakly manned and short of allies, a person at heart unhappy and uncertain stirs up his courage by waving flags and shouting slogans hostile to people of other groups on to whom he can project his own least satisfactory qualities. He identifies the Negro, the Jew or the Roman Catholic with his own id or shadow—or, in more old-fashioned language, with original sin or the devil. He sometimes builds his conventional picture or stereotype of the group he hates or despises on a shred of truth, on such generalities as for instance that the Jew is hard-working, frugal and successful, or that the Negro is fond of music, emotional and lives in the moment. But from such a generalization he goes on to construct a rigid rule and he would expect every Jew to be more frugal than every Gentile. And he may, as in Hitler's Germany, perform a trick of psychological sleight-of-hand and convince himself that the Jew is possessed not only by all the lusts he dislikes in himself but by all the virtues which have been urged upon him—to his resentment—by authority in the form of parents or the state. The Jew is in short both super-ego and id at the same time.

It is not to be supposed that everyone who displays prejudice of this kind is 'unbalanced', in the ordinary usage of the word; indeed, the prejudice may serve as a convenient mechanism for disposing of self-distrust and aggression and the person who displays it may thereby achieve balance. Nor is such prejudice always actively expressed in discrimination. Whether it becomes violent and active

depends partly on the extent of the personal shortcomings from which it arises, but also on the view which the society takes of prejudice. And this will depend on the aims of the society and on a whole mesh of factors, social and economic and legal. Hours of work, climate and weather, the relation of young people to old, the state system of education, the relation of wages to individual needs at different ages, a shortage of houses or work—all these must be factors in such an expression of violent prejudice as took place in Notting Hill in the late summer of 1958. Nor should one forget such wider influences as fear of nuclear warfare, nor that decay of religious observances which has developed not so much from the use of reason as from that senseless opposition to the use of reason on which professors of religion at one stage of the nineteenth century fell back.

Once it is exposed, the psychological basis for prejudice is clear and it is even clearer that there are economic and social reasons which drive prejudice to display itself in discrimination. Prejudice is not necessarily racial; it is directed against the stranger, who need not be visibly distinguishable from the native. But clear though this may seem today, it was far from clear a hundred years ago and, in the later part of the nineteenth century, a number of attempts were made to explain historical events in terms of a master race, of its successes, its failures and its dilution by miscegenation. And for the supposed hierarchy of race—the superiority of those now occupying the northern and western parts of Europe, the moral and intellectual degradation that accumulated as one moved southward and eastward—a single biological explanation was sought assiduously but unsuccessfully. No respectable thinker today supposes that history has followed a particular course because of differences in the shape of skulls or the formation of noses; even where social privileges are legally awarded on the basis of racial distinction, it is admitted that the races are 'potentially equal' and the legal differentiation is justified on the ground that each race has a distinctive culture which ought to be preserved and which can be preserved only if the races are kept physically apart. But the same mechanism of defensive separation is called into being for social, political and economic reasons even where there is no obvious physical difference between the groups. Thus it becomes clear that the racial argument is only an attempt to provide some reason for what is at root an underlying hostility and usually also a clash of interests between 'us' and 'them'.



That is the thread of argument, a continuous one I believe, which runs through the varied styles and the various matter of the eleven papers which follow. They will be found to indicate many fascinating by-ways and to be rich in stimulating thought. What all have in common is a deep concern to study and in some cases to preserve and extend both the unity and the diversity of mankind. At the end of the book, I discuss certain conclusions which may be drawn and certain lines of action which may be profitable.

## I. The Race Concept

by Lancelot Hogben F.R.S.

IN any sense in which the term *race* is intelligible to a biologist, it signifies a group which preserves more or less clear-cut characteristics within the framework of a wider assemblage of interfertile forms as the outcome of mutation pressure or selection in circumstances of geographical isolation or inbreeding imposed by human interference. All the available evidence about so mobile a species as *Homo sapiens* points to a long history of migrations in which very few assemblages of genotypes have remained in isolation long enough to ensure a high measure of homogeneity; and nothing we have learned during the past century about the geographical distribution of human physique has any certain relevance to the diversity of Man's unequally distributed cultural achievements. That a concept which has accordingly so exiguous a bearing on the contemporary distribution of the species has been the focus of so much unprofitable controversy would indeed be an enigma, if the peculiar circumstances incidental to the revival of evolutionary speculation in the mid-nineteenth century gave us no clue to the intellectual preoccupations of a period during which it emerged into prominence. It is therefore fitting that Dr. Barnicot will be dealing with the period from Darwin to Mendel in what follows; but I do not anticipate the danger of forestalling anything he may say about it, if I invite you to celebrate the centenary of the publication of *The Origin of Species* by examining how far the impact of Darwin's doctrine had or had not a salutary effect on the discussion of racial relations during the second half of the nineteenth century.

In recent times, physique has equipped few men more felicitously than Charles Darwin and Karl Marx to fulfil the role of father figure. Devoted followers of each have fathered on them views which they could not possibly have entertained in their lifetimes unless endowed with second sight. Such has been the destiny of many others, notably Newton; but judicious appraisal of Newton's contributions in his own generation did not arouse passions which a discussion of the views of Marx still excites, and those of Darwin, at least till lately,

excited. Happily, one can now re-examine Darwin's credentials before an audience that attained intellectual maturity after the controversy over his teaching had begun to cool off.

To get the major issues sharply into focus, certain facts about the material circumstances and mental climate of Darwin's time are highly relevant. Of the former, three are most significant. During the thirty years before *The Origin of Species* appeared:

- (a) oceanic navigation under steam power had both greatly enlarged opportunities for a global survey of living beings and forced the problems of geographical distribution on the attention of naturalists;
- (b) surveying of the type initiated during the period of canal construction had received a new impetus from railway construction;
- (c) optical technology had borne fruit in cardinal improvements both of the microscope and of the telescope.

The first of these signalized the acquisition of a heretofore undiscussed body of data challenging, if only because of their novelty, to traditional views concerning the origin of the contemporary diversity of animal and plant life. The second had equipped the collector of fossils with contour maps confirmatory of the general picture of the formation of the earth's crust first advanced by Hutton in the context of a precocious outburst of evolutionary speculation to which Erasmus, the grandfather of Charles Darwin, had contributed. Before 1810, there was little or no basis for anticipation of rational grounds for presuming an orderly succession of new types throughout a period of time vastly greater than the duration of the written record of human existence. By 1860, the principle of geological succession was a commonplace.

In the same milieu, advances of optical technology are revealing in a different sense. In its own setting, the microscope which accompanied Darwin on the *Beagle* was not despicable, though by modern standards fitting only as a Christmas gift for an eleven-year plus. Darwin himself was about twenty years old when the newer microscopes bore fruit in Amici's discovery that one pollen grain fertilizes one ovule, and when Cuvier assigned the human sperm as a parasitic organism to the genus *Cercaria* in his *Règne Animal*. The reproductive processes of Cryptogams then justified their designation. That few zoo-

logists in 1850 accepted the doctrine that one animal sperm fertilizes one ovum sufficiently explains why no zoologists—including Darwin and Wallace—recognized the wider implications of Mendel's work published nine years after the reading of their joint communication. Modern methods of fixation began to come into use during the fifties; but there were as yet no microtomes which could take advantage of the fact. The numerical constancy of the chromosomes was unrecognized. Indeed, Hertwig and Fol gave the first ocular demonstration that only one sperm fertilizes one ovum some fifteen years after *The Origin of Species* appeared; and the date is especially eloquent because any intelligible meaning we now attach to the term biparental inheritance in a biological context is referable to the material contribution of the sperm and the ovum to the outcome of the developmental process.

The three material features of the setting for the revival of evolutionary speculation at the end of the sixth decade of the nineteenth century have special interest if we also recall that it happened at a time when three major controversies dominated the ideological scene:

(a) Well into Darwin's manhood, well-nigh all the English leaders of natural science, Faraday and Joule like Davy, Henry, Dalton and Priestley before them, being non-conformists, had no university training. The Godless College of Gower Street was non-existent in Darwin's boyhood, and a Test Act excluded non-conformists from Cambridge till ten years, Oxford till twenty years, after the *Origin* appeared. Till the latter date, and throughout nearly the whole of Darwin's lifetime, the claims of ecclesiastical and secular authorities to control the educational system at every level were the focus of bitter controversy.

(b) The repeal of the Corn Laws occurred twelve years before the celebrated joint communication, and throughout the greater period of Darwin's lifetime the notion of free competition as a social ethic was a focus of secular controversy debated with scarcely less vehemence than the right of the Bishop's bench to censor a curriculum of naturalistic studies.

(c) Darwin could recall the abolition of the British slave trade during his boyhood, and had started his professional career as a naturalist in the Royal Navy before the prohibition of slave ownership in the British Colonies. The abolition controversy was at its

height during the decade which ended with the appearance of the *Origin*. The American Civil War began within four years of this event, and each side had vehement supporters in Britain.

With the end in view and with the space at my disposal, it is not possible to dovetail all these clues to the impact of the *Origin* on his contemporaries. So I shall say no more about the relevance of the *laissez faire* controversy to the peculiar appeal of the Malthusian jingle in the disillusion subsequent to the bright hopes of the French physiocrats. Nor shall I deal with the comic irrelevance of Herbert Spencer's beatification of natural selection as the Survival of the Fittest. None the less, we cannot judiciously assess the effect of Darwin's teaching on the discussion of racial questions, if we regard the issues involved as exclusively factual or logical. Biologists of the mid-nineteenth century approached them with social preoccupations intelligible only in the context of abolition and with views about the bearing of geographical varieties in general on the evolutionary problem intelligible only in the context of theological debate. Indeed a brief digression on the Test Act situation in its own technological setting will usefully emphasize how exiguous were the logical ties between what Darwin asserted and contemporary interpretation of his teaching, the more so because the *Origin* evoked no controversy conducted with comparable vehemence in contemporary France, where men of science in the tradition of the *Ecole Polytechnique* were mostly *libres penseurs*.

In its own social context, we have seen that technological advances had made possible considerable advances of scientific knowledge contributory to a formidable body of geological and geographical data which a Biblical view of creation, upholstered by Paley's natural theology with a teleological rationale, could not readily co-ordinate in a framework satisfactory to a sceptic. In the same milieu as the Test Act controversy, the untimely intervention of Bishop Wilberforce against so astute a champion of debate as Thomas Henry Huxley at the British Association of 1860 set what was to be the pattern of a debate which proceeded for more than a generation within the framework of common acceptance of a stupendous *non sequitur*. Thenceforth, both contestants subscribed to the dual proposition: if Darwin and Wallace are right, Genesis is wrong, and if Genesis is wrong, Darwin and Wallace are right.

The first half of the proposition is unexceptionable, and the second

is silly unless we concede that there are only two conceivable accounts of the origin of the diversity of living beings. It is therefore essential to remind ourselves that evolution is not the bare statement subsumed in the factual assertion embodied in the historic principle of geological succession. The doctrine of evolution makes the *additional* assertion that the divergent succession of living types is a consequence of the two circumstances incidental to the normal process of generation now subsumed by the terms hereditary transmission and genetic variation. In fact, as earlier remarks on the role of the microscope have sufficiently emphasized, it was not possible at that time to formulate clearly what we mean by the distinction and it was wholly impossible therefore to produce experimental evidence in support of the addendum.

Doubtless Darwin, who discreetly kept in the background of what was essentially an ideological controversy little to his taste, sensed this deficiency. At least, he followed up his masterly assemblage of facts invitatory to speculation on origins at a new level of discussion by publishing an anthology of domestic varieties of animals. For two reasons, we can say in retrospect without hesitation that *Animals and Plants under Domestication* adds nothing conclusive to the debate from a scientific, in contradistinction to an ideological, viewpoint. One is that most, if not all, of the data are susceptible to the interpretation that new domesticated varieties have arisen by recombination of highly diversified gene complexes through crossing different inter-fertile local varieties; and the possibility of change through such a process in the absence of mutation terminates automatically when we have extracted all viable recombinations. The other circumstance that deprives the argument of cogency depends on whether we define species in terms of what botanists sometimes respectively call Linnaean and Jordanian species. The latter include inter-fertile geographical varieties, but the former include units which either produce sterile offspring or no offspring at all when mated *inter se*. Darwin's data with respect to animals and plants under domestication throw no light whatever on how bisexual forms can arise, if inter-sterile with parent stock in this sense.

Only during the last half century have we gained conclusive proof of the mutation process and only in our generation have we obtained clear-cut evidence that new forms inter-sterile with parent stock can arise without supernatural intervention. Otherwise, as recognized by Philip (the father of Edmund) Gosse, himself a professional geologist,

we are free to interpret the historical record of the rocks as an indefinitely protracted sequence of acts on the part of a suppositious creator. As a devout Plymouth Brother, Philip Gosse conceived the time scale of the sequence to be commensurate with the majesty of Jehovah with full scriptural authority for the assertion that a day is with the Lord as a thousand years. On this understanding, anyone with a flair for the esoteric use of language can accommodate the facts as then known with a poetic interpretation of the Pentateuch narrative.

Such vagueness of the species concept as Darwin's zoological contemporaries used the term casts a long shadow over the discussion of inter-fertile local varieties of *Homo sapiens* in the ideological context of the abolition controversy. Taxonomists had not—and have not yet—resolved the antinomy of natural and artificial classification at the level discussed so informatively and inconclusively by Whewell in the first half of the nineteenth century. The popularity of evolution exonerated them from further discussion of the issue in terms of the adequacy or inadequacy of a traditional two-valued logic by endowing the task with a new and, as we now see, unattainable objective which condemned zoology to wander for forty years in a barren wilderness of phylogenetic speculation. In the exhilarating climate of emancipation from Paley's natural theology, transitional types whose intrusion into an otherwise tidy taxonomy had hitherto been a liability, had now the assurance of a cordial welcome as missing links. In short, Darwin's followers regarded the best arrangement of species within genera as an arrangement which mirrors phyletic relationships. By the same token, they equally condoned the propriety of discussing which inter-fertile local varieties within a species are more or less ancestral. Fortified by the belief that human fatigue is the only obstacle to the elucidation of such pedigrees by recourse to anatomical data, taxonomists undertook their self-consecrated heraldic task with no misgivings about the outcome.

Indeed, it will be difficult to believe that such a hope could have sustained such stupendous persistence in fruitless and trivial exploits of repetitive mensuration, if we do not fortify our credulity with the reflection that persons of considerable intellectual standing enthusiastically subscribed to the cult of phrenology when craniometry was still in the cradle. Even so, early measurements should have sufficed to damp the ardour of the most credulous craniometrician, if rational considerations had any relevance to the issue. The cranial capacity of Bismarck was 1,965 c.c. and his brain weighed 1,867

grams. The cranial capacity of Leibnitz, who advanced mathematics as few others of a very creative period, anticipated the study of comparative linguistics and managed the financial affairs of the Elector who founded our own Hanoverian dynasty, was 1,422 c.c. and his estimated brainweight was 1,257 grams. The figure for cranial capacity is instructive placed side by side with the following means:

Buriats (Mongols)	1,496
Kaffirs	1,460
Eskimos	1,563
Amerindians	1,450
La Chapelle Man	1,620

How lately such considerations influenced discussion of the geographical distribution of human endowments is evident from an autopsy on an (at the time) widely quoted Carnegie Institution publication by Davenport and Steggera (1930), based on a study of 372 Jamaicans chromatically classified by the authors as Blacks 105, Whites 100 and Browns 165. By that time the I.Q. had come into the field as a serious competitor to craniometrical precision. On the basis of samples not too sizeable to exorcize scrupulous attention to the method of social selection employed, the authors arrive (*inter alia*) both at: (a) the encouraging conclusion that Whites were 'outstandingly superior in their ability' to detect ridiculous conclusions, since they did best in Tests No. III (answer to 'common sense' questions), No. IV (meaning of words) and No. V (reconstruction of pied sentences); (b) the discomfiting disclosure that the Blacks excelled in Tests No. I (following complicated directions), No. II (problems in mental arithmetic), No. VI (recognizing and continuing numerical series) and No. VII (logical relations and analogies). The authors adroitly talk their way out of this dilemma by asserting (p. 469) that 'the Blacks seem to do better in simple arithmetic and with numerical series' because 'it seems a plausible hypothesis for which there is considerable support that the more complicated a brain, the more numerous its association fibres, the less satisfactorily it performs the simple numerical problems which a calculating machine does so quickly and accurately'. It would be paranoid to attribute a mischievous intention to any whose criteria of reasoning are so sub-standard.

Both contemporary genetical considerations referable to repetitive and back-mutation at the same locus and palaeontological evidence



of the extent of convergence in the past, have now taught us to dismiss the possibility that we can ever hope to tailor the terminal twigs of a taxonomic system to a historical sequence; but the illusion that it is possible to do so was undoubtedly the midwife to the discipline we now call physical anthropology. Reference to the literature of the time abundantly discloses that one circumstance propitious to this was the hope of demonstrating that the African Negro is more primitive in a zoological sense than the Southern gentry and their supporters. Whence we are to conclude that the African is: (a) less teachable; (b) not entitled to use the ballot box; (c) a suitable beast of burden for the white man. Each of the last three statements is a *non sequitur*, though little recognized as such in the highly impassioned climate of debate at the time of the American Civil War and its aftermath. Today, it suffices to comment that the hope which sustained the undertaking is itself illusory.

A humane man, who expresses in his Journal profound disgust towards the institution of slave ownership, Darwin bears no responsibility for this perversion of his teaching. It is also relevant to recall that the *Origin* appeared before the publication of the microbiological researches of Koch and the immunological studies of Pasteur. Only during the last fifty years have parasitological investigations familiarized us with a host of data relevant to the question: what obstacles have retarded the technological development of the African peoples? Of itself, the fact that domesticable ungulates in general and the horse in particular are highly susceptible to trypanosomiasis has condemned Africans south of the Tropic of Cancer to be their own beasts of burden in territories where malaria,<sup>1</sup> yellow fever, hookworm, bilharzia and many other diseases only lately recognized by medical science exact a heavy toll from the vitality of the people.

In the highly charged emotional climate of the Test Act controversy, thinking about the race issue was liable to distortion for another reason, which Disraeli's memorable phrase recalls. Briefly, the uprisen ape was by no means a fallen angel. Provoked by the irrationalities of their opponents, biologists thus found themselves sorely tempted to justify the inclusion of Man in the animal kingdom by recourse to arguments more menacing to the credentials of their

<sup>1</sup> One often hears from those who should know better that natural selection has made the African immune to malaria. In fact, malaria is a major menace of the African village in the early years of life.

antagonists than relevant to the rationale of a taxonomical preference. Inevitably in the heat of debate, it seemed all-important to emphasize what Man shares with other animals, the more so because so much about Man's peculiarities still eludes what we ordinarily agree to call physiological inquiry.

To be sure, the new evangelists had good reason to believe that differences with respect to the genetic make-up of animal species are primarily responsible for differences of behaviour which distinguish one (e.g., a social ant) from another (e.g., a solitary bee). Thus the analogy between locally restricted species of social organisms with distinctive anatomical *facies* and human communities distinguishable both by different culture patterns and by minor somatic peculiarities such as of skin colour or hair, disposed of any embarrassing temptation to remedy lack of intensive study of what is peculiar to the human ecological system.

Nor need we blacken the good name of our illustrious forefathers for what should now seem to be rashness of judgement on such matters. Our situation is otherwise. No one with educational pretensions still subscribes to Lightfoot's chronology, which dated the appearance of human life on this planet as September 12th, 3298 B.C., at 9 a.m. With Lightfoot, Ussher and Bishop Wilberforce so far in the rear, and with no less detachment than that with which our predecessors could examine what distinguishes the mussel or the marmot as one animal species from all others, we ourselves ought now to be ready to ask: what distinguishes Man from other animal species? Admittedly, we have still far to go before we can comprehensively discuss in the language of physiology the characteristics which make Man unique; but we shall not fulfil our target requirements (if at all) unless we recognize what they are.

In broad terms, they are easy to state and commendably biological considerations do not discharge us from the obligation to do so. Man is uniquely educable. In a unique sense, Man is a tool-making organism. In a unique sense, Man is also an animal capable of *informative* communication through speech. Because of this threefold uniqueness, a single animal species can fashion a changing environment and hence a changing milieu for its own developmental process. Like any other organism, Man transmits his genes to the next generation; but for the three reasons stated, and in a sense which likewise transcends anything comparable that we may rightly say of any other species, Man also transmits experience to the next generation.

Thus every change of the human environment through human interference signalizes a new accretion of transmissible experience and a new potential of further change. Because of this, human society is a unique ecological system. It owes its essential peculiarities to idiosyncrasies on which the study of social Hymenoptera has little or no bearing. While there is admittedly a *prima facie* case for the assumption that other local differences of animal behaviour are finally traceable to differences within the proper province of genetics, there is no such case for the presumption that different patterns of Man's social behaviour are predominantly traceable to the same source.

In the last resort, the mutation of chromosomes or of single genes is admittedly the pace-maker of organic evolution. We now know what the circumstances which determine its tempo and character include. These are:

- (a) the rate of mutation;
- (b) the viability of mutant types *vis à vis* the immediately available environment or the secular changes of the latter;
- (c) mating systems more or less propitious to the concentration of genotypes in pure lines in a particular ecological *niche*.

We now know, though only since 1920, that mutation rates are highly variable. Consequently, the circumstance that many species have remained in all detectable ways fixed throughout vast geological epochs confronts our view of the evolutionary panorama with no enigma. Darwin's contemporaries and immediate successors preferred to ignore it. More especially as interpreted by Romanes and Galton after Weismann had discredited the Lamarckian superstition, the exponents of Natural Selection presented it as a process of ubiquitous, continuous and uniform change. Accordingly, the possibility of social change without concomitant organic change of comparable magnitude seemed to be contrary to the Laws of Nature. On the other hand, the possibility that *Homo sapiens* is a relatively stagnant species from the genetic viewpoint is no-wise repugnant to what we now know as surely as we also know that the human ecological system has a *momentum sui generis* regardless of concomitant selection of genotypes. No reasonable and informed person doubts that human beings are genetically variable; but a rational examination of the relation of transmissible patterns of human behaviour, both to the diversity of the external environment in time and space and to the systems of mating peculiar to local communities, must take within

its scope a multi-dimensional potential of change attributable to the circumstance that one generation passes on to the next its own experience and the experience of its predecessors.

A single example should make this manifest. If the beginnings of civilization testify to the formative role of the calendar in the first stages of writing, they also disclose, and with equal eloquence, how latitude, climate and contour have been peculiarly propitious or otherwise to the universal necessity of time-keeping in communities which have refined the technique or have failed to do so. Though we still know very little about the genetic endowments of human communities and most that we hear is suppositious, such manifest external circumstances favourable to cultural efflorescence and to cultural stagnation are manifold. Nor can we appreciate how vast a range of possibilities they endorse if we discuss them singly and in isolation from the sum of acquired experience on which a particular community can draw. When the migrations of human stocks bring them into contact with otherwise similar circumstances, it will rarely if ever happen that two communities will respond within a comparable framework of traditional behaviour and equipment. Whether new circumstances are favourable to human inventiveness or otherwise, and if favourable with what possible outcome, is an enigma which therefore subsumes vastly diverse admissible solutions.

Thus the interplay of the diversities of environment on the stock-in-trade of transmissible experience encompasses a wide range of possibilities *vis à vis* the tempo and character of social change. Indeed, the inertia of experience accumulated in dealing with a stimulus-complex which Toynbee calls the challenge of the environment may more or less effectively resist the impulse to deal with a new stimulus in a new way when other means of doing so are available. Accordingly, one may cite numberless examples of how failure to take advantage of a new situation may then deprive a community of the means of meeting the challenge of a different and later situation. For instance, the consequence of access to abundant root crops or of migration into an area where domesticable ungulates are available as beasts of burden may be quite different, if the event follows, from what it will be if the same event antedates, a well-established cereal economy. Equally, the adoption of a maize rather than a millet economy may initiate a train of events along a course with peculiarities—some medical—of its own.

A little reflection on widely accessible and abundant sources of

information should therefore suffice to justify the conclusion that the joint relation of the human personality to its social and physical environment admits of many degrees of freedom, that minor variations of the sequence of otherwise similar stimuli may lead to widely divergent responses, and that anticipation of future consequences from definitive antecedents is rarely (if ever) a profitable undertaking. That the human ecological system has unique features, that it has a well-nigh limitless potential of change in the absence of the operation of forces which make some animal and some plant species more short-lived than others, and that genetic variability is never manifestly the pace-maker of such change are indeed propositions attested by the proper study of mankind. No knowledge we have yet gained from the study of plant or animal breeding can nullify them. Accordingly, such knowledge is not necessarily relevant to the evaluation of the changing character of human society. It would be rash to deny the possibility that genetic selection has played a part in the decline of civilizations, as asserted by R. A. Fisher and the late unlamented Alfred Rosenberg; but it is reckless to assert that it has done so without a searching examination of other possibilities, the more so when an assertion, itself perhaps plausibly relevant to a single instance, embraces the history of all civilizations.

Are we then to conclude that biology can make no contribution to the elucidation of circumstances contributory to the diversity of culture patterns more or less highly characteristic of human beings with predominant physical attributes in a particular locality in a particular epoch? Assuredly not, unless we concede the impertinent claim that genetics embraces the entire field of biological inquiry or subscribe to a still too widely current nineteenth-century attitude to technological progress in antiquity. In the first fine flush of an unprecedented sequence of inventions following the introduction of steam power and the elucidation of the electric current, it was easy for archaeologists to take an unduly teleological view of the origins of fire, implements, clothing, the calendar, writing and especially (as the term implies) the domestication of animals. If we dispense with the inclination to do so, we are free to regard advances of human technology during the greater part of the 25,000-year saga of our species as a succession of fortuitous blunders dictated by unforeseen circumstances. In so far as this may be true, the *Führerprinzip* drops out of the story as an irrelevant postulate.

We have then to re-examine from two points of view the meaning

of what we have hitherto called domestication *vis à vis* the role of commensalism in the diversification of what I have here called the human ecological system, meaning thereby what biologists customarily mean in contradistinction to the parochial and restricted use of the term in the title of the Professor of Human Ecology in Cambridge University. The beginnings of this composite system of species relationships takes us back to the association of Man with inter-fertile local varieties of Canidae in the early Palaeolithic, and hence to the possibility of blundering into herdsmanhip where: (a) hunting nomads accompanied by their dogs came into contact with gregarious ungulates; (b) there were natural barriers to circumscribe an enclosure in which to round up a herd. From one viewpoint, we may therefore ask how the inclusion of one species in the ecological niche we call a local culture determines the subsequent inclusion of another. For instance, we may plausibly examine the sequence: given grain storage, then mice or rats, then the cat.

From a different viewpoint, we may ask: what new mechanical problems does the inclusion of a new species in the human ecological system force on the attention of the social group? For instance: is it a mere coincidence that the indigenous Americans without horses when Europeans came to their continent had not perfected the wheel? In *Habitat and Economy*, Daryll Forde has commendably put before us many problems of this type; but there is still considerable scope for fruitful co-operation between archaeologists, cultural anthropologists, zoologists and botanists in the search for answers to many others. In my view, we shall advance little towards a deeper understanding of the diversification of human culture patterns in space and time till we are able to answer them. To be sure, human ecology in the very restricted sense of the term, as used by the Medical Faculty of Cambridge, has its own role to play until we know far more than we know as yet about what obstacles to technological advance are attributable to harmful organisms as members of the human ecological system in the wider sense of the preceding discussion.

On the other hand, the time is long overdue to recognize that the Pearsonian discipline designated physical anthropology, conceived in any terms other than its relevance to stock-taking in the tailoring and furnishing trades, is a blind alley in the landscape of biological science, like its parent phrenology harmless as a hobby for the opulent aged, but with no rational claim to support from the public purse.

## 2. From Darwin to Mendel

by N. A. Barnicot

THE revolution in biological thought which followed the publication of Charles Darwin's *The Origin of Species* one hundred years ago, coincided with a period of great activity in the scientific study of man. The foundation of learned societies in several countries had brought together a diversity of experts and enthusiasts to describe and dispute upon the varied forms of human physique and custom. By the end of the eighteenth century the great voyages of discovery had already opened the continents to European enterprise and had revealed their inhabitants to ethnological science, but the detailed exploration of the great land masses was still under weigh, bringing a more intimate knowledge of exotic peoples. The Société d'Anthropologie was founded in Paris in 1859 and four years later it was followed by the Anthropological Society of London, later to become the Royal Anthropological Institute. The new society numbered Charles Darwin among its Honorary Fellows and it is interesting to find that the great naturalist contributed a short section on 'Physionomy' to *Notes and Queries on Anthropology*, the handbook for field workers which is now the responsibility of this Institute.

A more punctilious speaker might perhaps defer a discussion of the race concept in Darwin's day for another twelve years, since he made only a passing reference to man in his famous publication of 1859. As he himself admits, he feared that a premature discussion of human evolution might prejudice the reception of his general theory. By 1871, however, when *The Descent of Man* was published, he felt that his views had gained sufficient ground in the scientific world to broach this delicate topic. He therefore reviewed the evidence of man's relationship to other animals and considered whether his theory of natural selection could account for evolutionary change not only in the anatomy of human ancestors, but in their mental and moral qualities. He also devoted a chapter to the nature and origin of human races which is our special topic here.

Darwin starts by considering whether contemporary forms of man should be regarded as a single species. He was himself a highly experienced field naturalist accustomed to deal with taxonomic problems

ever since his voyage round the world in H.M.S. *Beagle* in 1831-36, and his views on this question are therefore particularly interesting. The problem itself was an old one and it may be useful to outline some earlier views in order to see Darwin's approach in better perspective.

Classifications of animals and plants have a long history, but the System (*Systema Naturae*) published by the Swedish naturalist Linnaeus in 1735 is regarded as the foundation of modern taxonomy. It is to him that we owe the dual terminology which gives to each form a generic name such as 'Homo' and a specific name such as 'sapiens'. Linnaeus regarded each species as originating in a unique creation, though he recognized that some species were not uniform but could be further divided into races or varieties, and he included four major varieties of man in his own classification. This was the orthodox view held by most naturalists in the eighteenth century and the one most concordant with Biblical authority. If we consult the volume of the monumental *Histoire Naturelle* in which Buffon gives a lively account of the manners and physique of human populations, we find the following statement: 'There was originally only one species of man, which, multiplying and expanding over the whole face of the earth, underwent various changes under the influence of climate, of differences of nutrition, of different modes of life, of epidemic diseases and by the infinite numbers of mixtures of individuals more or less like one another.' The shrewd and industrious Blumenbach of Göttingen takes a similar view in his famous book *On the Natural Varieties of Mankind* published in 1795, and so does James Prichard in his influential *Researches into the Physical History of Mankind* of 1813. There was indeed room for controversy regarding the appearance and homeland of the primeval man; Blumenbach envisaged him as a white man of his ideal Caucasian type, while Prichard thought that he might have been black. Some region between the Caucasus and Hindu Kush was held to be the most likely site of his creation.

This orthodox, monogenist view was later attacked by a contrary faction who denied that differences of environment could have produced the observed geographical variations in human physique. Notable among these polygenists were the members of the American school, including Samuel Morton the craniologist, who surpassed Blumenbach by accumulating a cabinet of one thousand skulls, Louis Agassiz, the zoologist, and Josiah Nott, an Alabama physician. Their



conclusion that there were several species of man, each a separate creation adapted by Divine prescience to a particular habitat, provided a useful rationalization for the supporters of slavery at a time when a deep cleavage of opinion on this issue was developing in the New World. Some monogenists had expressed their horror of slavery and had affirmed their belief in the essential unity of mankind. Blumenbach, for one, in his essay 'On the Negro' of 1806 had urged the merits of this generally despised people, but the opposing faction saw in such arguments only a sentimental philanthropy which refused to face up to scientific facts. Even the monogenist view itself could be moulded to the needs of propaganda since, it was argued, the Negro must have degenerated from the original state designed by the Creator. Biological thought on questions of race was already embroiled in the bitterness of social conflicts.

Darwin, in taking up the question of human taxonomy, states the opposing views with characteristic fairness and without indulging in polemical side issues. His own feelings about slavery, incidentally, are clearly expressed in his *Journal of Researches* when, in recounting his departure from Brazil in 1836, he says, 'I thank God I shall never again visit a slave country.' If a naturalist were presented with examples of the more divergent forms of man, he would note that they differed markedly in a number of physical features and he would, in Darwin's opinion, regard them as distinct species; he would be confirmed in this decision if he were told that they inhabited widely separated parts of the world. However, a more thorough inquiry would show that the differences were very variable in each population and that numerous intergrading hybrid forms could be found, and this would make it clear that they ought to be classified as subspecies, races or varieties. Darwin therefore came down on the monogenist side and for much the same reason as Blumenbach, who, although he produced his own classification of man, regarded it as a crude and approximate device, because, as he said, 'innumerable varieties of mankind run into one another by insensible degrees'. Darwin's attitude to the facts was, however, fundamentally different to that of his predecessors. The essential similarities between existing races meant to him that they had evolved from a common ancestor whose pedigree might in turn be traced back to some more ape-like creature. The exact taxonomic status of human populations was not to him a matter of profound significance, though he thought that subspecies was perhaps the most appropriate term. He saw a

species as a transitional stage in evolutionary divergence and held that ambiguous cases, which would be difficult to classify, were to be expected and indeed welcomed as evidence of evolution in action. T. H. Huxley, in his essays on 'Man's Place in Nature' of 1864, had been quick to realize the implications of evolutionary doctrine for anthropological research. He himself took a cautious view on the taxonomic problem, preferring to use the word 'stocks' so as to avoid begging the question whether divergence in man had reached the point of specific distinction. In his essay 'On the Methods and Results of Ethnology' he also pointed out the dangers of confusing linguistic and biological evidence in tracing relationships. He paid more attention than Darwin to the tangible remains of earlier man which archaeology was then beginning to reveal and discussed the Neanderthal skull of 1856 in some detail.

The existence of hybrid human populations was one of the points considered by Darwin in reaching his conclusions and I must briefly refer to some historical aspects of this question. It was well known that acknowledged species showed no evidence of interbreeding in nature and that in captivity some interspecific crosses resulted in viable but sterile offspring. A book by Paul Broca, the leading spirit of the Société d'Anthropologie, entitled *On the Phenomena of Hybridity in the Genus Homo* (1864) provides an account of the views prevalent at this time. Although it was admitted that much intermixture had occurred in the history of Europe, it was widely doubted whether all forms of man were fully interfertile. J. C. Nott in America asserted that mulattoes were delicate and short-lived and that children of crosses between them were few and sickly, and Dr. Waitz in his *Anthropologie der Naturvölker* affirmed that even Negro-Foulah crosses resulted in many stammerers, blind, hunchbacks and idiots. Travellers had reported the rarity of hybrids between Europeans and Australian aborigines, in spite of frequent unions with their women. The social implications of race-crossing had, of course, been dealt with by de Gobineau whose *Essai sur l'inégalité des races humaines* (1854) had been introduced to America by Nott. The French writer attributed the fall of Rome to this unsalutary practice and some prognosticated a similar gloomy fate for American civilization if it were allowed to persist. The alleged infertility of inter-racial crosses was held by the most pessimistic prophets to threaten the whole future of human civilization. The mistaken notion of pure races and confusion of thought concerning the relative influences of heredity

and environment in human cultural achievement were common at a time when genetical science had still barely emerged. Darwin, in discussing the evidence on human hybridization, suspected, with characteristic shrewdness, that much of it was faulty, and that the disabilities of half-breeds resulted more from social conditions than from biological causes.

I must now turn to Darwin's views on the mechanism of evolutionary divergence in the human species. His theory of natural selection, which is perhaps his most original contribution, was less readily accepted than the idea of evolution itself. It is well known that his reading of Malthus' *Essay on Population* (1798) suggested to him that the prodigious reproductive capacities of living organisms would, if unchecked, outrun the means available for their support, and this would result in the elimination of all but a few in each generation. These few, he argued, would be those variants best adapted to their habitat and they would pass on to the next generation the attributes which had enabled them to survive. This simple and elegant theory would account for slow adaptive change in a species as the inevitable consequence of biological facts without recourse to supernatural agencies.

Darwin discussed rather briefly whether the obvious distinctions of form and colour between human races could have adaptive value. He made some interesting suggestions such as that dark skin colour might be correlated with resistance to particular diseases, but he came to the conclusion that natural selection could not have been a major factor in the evolution of racial differences. He therefore fell back on his subsidiary theory of sexual selection. His exposition of this theory as applied to animals in general forms a second part to *The Descent of Man*. It is a part of his work which has not received much attention from modern biologists and as an explanation of human racial differences has been almost totally neglected. It was primarily intended to account for the striking differences of ornament and armament which distinguish the sexes in many species. Briefly, Darwin argued that the males competed for females either by combat or display and that those who succeeded would be most likely to have offspring who would inherit the attributes which had made their fathers successful in the contest. It was essential to the workings of the theory to suppose that the victors left more progeny than the vanquished either because they secured more females or because their matings were more fertile. Darwin suggested that the reduction

of hair in the human species was originally a device for sexual attraction developed in the female, like the bare areas of skin in some monkeys, but that it came to be manifested to some extent in males also. He supposed that in small, isolated groups of human ancestors, a measure of physical differentiation arose, presumably by natural selection, and that certain of these features came to be preferred by the dominant males, who both secured more mates and chose them for these attributes; in this way physical distinctions between populations developed. Although he supposed that all this occurred at a phase of evolution when human mating behaviour was governed mainly by instinctive drives, he nevertheless brought forward much evidence from contemporary primitive societies in support of his theory. He pointed to the universal love of self-adornment among savages, their high valuation of their own physical distinctions, and their frequent conflicts over women. He admitted, however, that a state of primitive promiscuity, such as Morgan and others postulated, and the occurrence of child betrothal and infanticide would argue against his theory. We must remember that the tradition of accurate and objective ethnological study was still young and that scholars often had to rely on anecdotal and biased evidence from untrained travellers. Some of these found savage peoples ignorant, godless, licentious and dirty, and were chiefly impressed by their general failure to behave like English gentlemen. Darwin remarks on his first meeting with the Fuegians, when he was in his twenties: 'I could not have believed how wide was the difference between savages and civilized man', but his own attitude was observant and sympathetic and he comments, on seeing a party of aborigines in New South Wales, that 'their countenances were good-humoured and pleasant and they appeared far from being such utterly degraded beings as they have usually been represented'. His cousin, Francis Galton, speaks of 'the impulsive and uncontrolled nature of the savage' (*Hereditary Genius*, 1869) while the Rev. Farrar, writing in the *Transactions of the Ethnological Society* in 1867, rises to almost poetical heights in describing 'the tallow-coloured Bosjesmen, who when not living on worms and pismires are glad to squabble for the putrid carcase of the hyaena . . . the leather-skinned Hottentot whose hair grows in short tufts like a worn-out shoe-brush . . .' and 'the degraded, gibbering Yamparico whose food consists of vermin'. More modern research has tended to emphasize the wide distinctions between human and animal societies; in the case of the Australians

who so often figured as an example of 'natural' man, it has revealed a remarkable complexity of kinship rules governing mating which must considerably restrict the sphere of personal choice. Polygamy of a high degree does not seem to be characteristic of the primitive hunting societies, but the kind of detailed demographic information on differential fertility which might have a bearing on Darwin's theory is unfortunately very scarce and mostly derived from more complex agricultural communities. Speculations about the origin of human social practices based on comparative ethnographic material are now most unfashionable and their limitations are indeed obvious enough; social anthropology has moved to other more modest, if perhaps somewhat rarified, fields. Whatever the effects of sexual selection on the visible human attributes may have been, it is worth noting that it can scarcely have affected the distribution of the various hidden inherited characters, such as blood groups, which now occupy a central position in studies on natural selection in man.

The theories of natural selection and sexual selection presuppose the occurrence of inherited variability. Without variation selection can produce no change and unless the selected variations are inherited, no permanent alteration in the species can result. The origin of variation puzzled Darwin and he remarks in *The Descent of Man*, 'with respect to the causes of variability we are in all cases very ignorant'. He was inclined to believe, like many of his predecessors, that variation resulting from the direct action of the environment could, in the course of time, become heritable. He dealt in detail with problems of variation and heredity in his *Variation of Animals and Plants under Domestication*, published in 1868, in which he developed his theory of pangenesis. He suggested that all the tissues of the body produce sub-microscopic 'gemmules' which pass to the germ cells and later determine the differentiation of each tissue during development; environmental factors acting on the cells of the body might modify the character of the 'gemmules' they produced and these, passing to the germ cells, would transmit the altered characters. A similar idea is to be found in the writings of Hippocrates. Francis Galton, a pioneer of human genetics, thought Darwin's hypothesis valuable, but was inclined to doubt the inheritance of acquired characters (*Hereditary Genius*), and the writings of Weismann and later the rapid advances in Mendelian genetics relegated this theory to the background.

The remarkable changes which human selection had produced in

domestic animals provided Darwin with a useful argument bearing on the efficacy of natural selection. He was well acquainted with the empirical knowledge of heredity acquired by practical breeders and fanciers. He recognized, for example, that some characters might be transmitted in 'latent form' and only manifest themselves sporadically; that in-breeding often led to a fall in fertility, and that while the hybrids from crosses between inbred lines were often intermediate in form, the progeny of a second generation cross were widely variable. He failed, however, to weld these facts into a coherent theory of hereditary transmission. Galton clearly realized the particulate nature of inheritance and in a remarkable passage in his *Natural Inheritance* (1889) he seems to anticipate later views on the multifactorial basis of metrical characters; he says of the inheritance of skin colour that it 'need be none the less particulate in its origin but the result may be regarded as a mosaic too minute for its elements to be distinguished in general view'. It is surprising that the laws of inheritance which had already been published by Mendel in 1866-69 eluded this acute worker, devoted as he was to the quantitative approach.

The story of the neglect of Mendel's work and its rediscovery in 1900 is well known and I shall not attempt to repeat it. His success was due to his judicious choice of experimental material combined with meticulous and systematic recording of results and a capacity for clear and logical interpretation. His work paved the way for a much clearer understanding of variation; the concept of gene mutations combined and recombined in an infinite variety of genotypes by the process of sexual reproduction, and the interaction of genotype and environment in controlling the development of the organism began to emerge. It took some time for the work of experimental geneticists to revitalize the study of evolution and to become a major influence in anthropology. Work on experimental animals advanced more rapidly than human genetics until statistical methods were developed for the more exact analysis of human data. The theory of natural selection was subjected to the scrutiny of mathematical geneticists and population genetics began to develop as a flourishing discipline combining theoretical analysis and field observation. The differences in skull form, skin colour and other morphological features to which anthropologists had so long devoted their attention did not, unfortunately, prove easy material for rigorous genetical investigation, though attempts in this direction were made. The discovery of

the ABO blood groups by Landsteiner in 1900 and their application to anthropology by the Hirszfelds in 1918 opened a new period in the genetical study of human populations, but this is a subject which I must leave to a later speaker.

One important result of the growing concern with heredity and of the impact of Darwinian ideas at the end of the last century was the emergence of the eugenic movement. 'The processes of evolution', said Galton, its leading figure, 'are in constant and spontaneous activity, some pushing towards the bad, some towards the good. Our part is to watch for opportunities to intervene by checking the former and giving free play to the latter.' Some of Galton's views seem over-confident and even comical today. He placed excessive emphasis on the unalterable influence of heredity on human mental and moral endowment and many of his investigations on this subject strike us as crude and uncritical. His attitude to the decline of primitive peoples under the advance of civilization was often far from liberal. He admitted, however, that it was not always easy to assess the relative merits of either individuals or races. His writings, although they may be open to criticism, did much to focus attention on the importance of genetical study of man. Darwin was well aware of Galton's views, but his own attitude to these problems seems to have been less positive and confident. He believed that in the course of human evolution the most moral and intellectual men would on the whole have left the most progeny and that the development of social instincts under the guiding force of natural selection had been a vital factor in the evolutionary history of man. If civilization resulted in the protection of defectives who would formerly have perished, this, he thought, was a price which human charity should willingly accept. 'Important as the struggle for existence has been and even still is,' he remarks in the closing pages of *The Descent of Man*, 'yet as far as the highest part of man's nature is concerned there are other agencies more important. For the moral qualities are advanced, either directly or indirectly, much more through effects of habit, the reasoning powers, instruction, religion, etc., than through natural selection.'

### 3. The Biological Effects of Miscegenation<sup>1</sup>

by G. Ainsworth Harrison

THE biological effects of miscegenation depend upon the nature, magnitude and causes of the differences between the parental forms. It is, therefore, necessary to consider briefly the structure of human diversity before discussing the particular consequences of hybridization.

Different biospecies of animals may mate and produce some fertile offspring under abnormal conditions. For example, in the spread of the capercaillie in Scotland the female range extends usually some ten miles further ahead of the males. In these areas the capercaillie female will successfully mate with native blackcocks but when the capercaillie males reach the area, normal biospecific distinctiveness is re-established. The conditions under which some of the least similar forms of men initially hybridized in recent times were somewhat similar in that the migrant group was at first made up principally of males. But few would maintain that there is more than a single biospecies of extant man, since most, if not all, of the barriers to unrestricted mating seem to be of non-genetic origin and consequently could be quite rapidly removed. All individuals, therefore, actually or potentially share in a common gene pool. Nevertheless, mankind is genetically highly variable. In even the smallest Mendelian population there is such enormous genetic heterogeneity that the probability of two individuals, other than 'identical twins', having the same genotype is extremely remote, and despite the great adaptability of the individual, different populations are invariably differentiated genetically.

Populations which are in close proximity are subjected generally to more similar selection and share more fully in the same segment of the species gene pool than geographically remote populations. It is not surprising, then, that the most diverse forms of man were the most widely separated until recent migrations. They were, nevertheless, connected by a series of populations which showed nearly every degree of intermediacy in gene frequency and of phenotype. Such clines, however, do not slope evenly over large distances, since

<sup>1</sup> A glossary of terms is attached at the end of this paper.



intermittently there occur abrupt environmental changes and barriers of various sorts which restrict gene flow. Further, even genetically independent characters tend to vary together in response to a single selecting agent or covarying selecting agents. Most of the differences between two very distinct groups of people are, therefore, often established in relatively narrow zones and geographical divisions of man can be recognized. There are, for instance, quite marked changes of physical type along the southern border of the Sahara, across the Himalayas and associated mountain ranges and around the boundary between Australasia and S.E. Asia. The human species, then, like many other animal species, is polytypic.

Races may differ either in the frequency with which the same genes occur or in having different genes. Although there is no fundamental distinction between these two situations, the destiny of a gene introduced into a population will depend upon whether or not the population already contains, or has contained, that gene. So far as simply determined genetical differences, at least, are concerned, races differ more in the frequency of genes than in the possession of different genes. It is true that some populations are polymorphic for certain characters (e.g., sickle versus normal haemoglobin), whilst others possess only one of the responsible alleles, but there seem to be few cases in man of each of the two or more alleles of a polymorphic population being solely represented in different populations. However, many of the genes determining some of the classical anthropological characters of at least the most diverse forms of man are probably completely different. This is suggested when there is a large gap between the distributions of a character in different races, as for instance is found in the colour of untanned skin. As already mentioned, hybridization between not very dissimilar populations has been a widespread and constant phenomenon throughout human history and, since it occurred in many directions, it provided the opportunity for genes which arose in a particular population to reach most populations. There was, of course, no certainty that this would occur: the principal factors determining the likelihood being the scale of the hybridization and the fitness of the gene in the intermediate populations through which it had to pass. It is only in comparatively recent times that large numbers of the most diverse forms of man have been directly brought into immediate contact.

Hybrid populations are usually formed in a complex way. Only rarely do approximately equal numbers of individuals of different

origin establish immediate panmixis away from their ancestral populations. This occurred in the formation of the Pitcairn Islanders but such a situation is quite exceptional. More typically they are gradually built up, since the cohabiting races do not mate at random and the hybrids initially form a semi-isolated unit within a compound Mendelian population, e.g., in South Africa. Further, the contributions made by the parental groups are usually not only unequal but may change as hybridization progresses.

The study of established human hybrid populations is also complicated by the difficulty of finding present-day groups which adequately represent the genotypes of the hybrids' parents. Even when the locality from which these parents came is known it is not certain that the inhabiting population has not changed, and in view of the findings of Shapiro and Hulse (1939) it seems probable that, if the parents were migrants, they did not randomly sample at least the body build characteristics of their stay-at-home relatives. Finally, there is the complication that the environment of the hybrids is usually very different from that of either of their parents. These factors, along with the unbelievable sparsity of objective observations on hybrid populations, allow only the most tentative conclusions to be drawn.

#### MENDELIAN CONSEQUENCES OF MISCEGENATION

##### *Gene Frequency*

The frequency of a gene in a hybrid population will obviously depend upon its frequency in the parental populations and the proportions of these populations which are compounded in the hybrid. For instance, if two populations both homozygous for a pair of different alleles make equal contributions to the formation of a hybrid population, the frequency of each allele in this population will obviously be 0.5 (i.e., 50 per cent.). If the two parental populations are not homozygous and the frequencies of alleles  $A$  and  $A^1$  are respectively  $p_1$  and  $q_1$  in one population and  $p_2$  and  $q_2$  in the other, the frequency of  $A$  in the hybrid population will be the mean of the  $p$ s and of  $A^1$ , the mean of the  $q$ s. In more general terms, if one parental population contributes a fraction  $x$  and the other the fraction  $y$  to the hybrid population the frequency of  $A$  in the latter will be  $xp_1 + yp_2$  and of  $A^1$   $xq_1 + yq_2$ .

As has been said, hybrid populations are usually built up by the

slow introgression of genes from one race into another. Glass and Li (1953) have made the first step in following this process by devising an expression<sup>2</sup> for determining the rate of flow of genes whose frequencies in the hybrid and parental populations are known. Applying this expression to the North American Negro population, they found from the distribution of the *cDe* chromosomal combination that the accumulated amount of white intermixture to date is 30.5 per cent. and, on the basis of ten generations of intermixture, that the modal rate of gene flow per generation is 0.035. The results obtained from six other genes gave good agreement. Assuming the same rate of gene flow continues and that the respective elements retain their present proportions in the combined population, Glass and Li calculate that an equilibrium frequency will be established after about sixty generations. They note, however, that there will probably tend to be an increase in the rate of gene flow as the hybrid and white populations become more similar, and that complete equilibrium need not be attained before the two populations become indistinguishable. This prediction is then only likely to be an underestimate if the rate of intermixture was at first very rapid and has now slowed down or if the estimates of the differences in gene frequency in the foundation populations were too small. In fact, Roberts (1955), who has obtained a more reliable estimate of the gene frequencies in the original Negro population, calculates that the modal values of gene flow are between 0.02 and 0.025 and that the accumulated white admixture is only 25 per cent. If this rate of introgression continues about 120 generations are required before equilibrium is reached. Saldanha (1957) has made a similar study on the rate of gene flow from white into Negro populations in Brazil, where the modal values (0.045–0.055) and the accumulated white admixture (40 per cent.) appear to be higher than in the North American Negro.

### *Multifactorially Determined Characters*

Trevor (1953) has made a detailed analysis of all the reliable data on the anthropometry of recently formed hybrid populations. One

<sup>2</sup> The general form of this expression is  $(l - m)^k = \left( \frac{q_k - Q}{q_0 - Q} \right)$ , where  $q_k$  is the frequency of an allele in the hybrid population after  $k$  generations of intermixture,  $q_0$  and  $Q$  are the frequencies of the same allele in the parental populations and  $m$  is the fraction of alleles in the mixed population which are introduced per generation from the population with allele frequency  $Q$ . The right-hand side of the equation is Bernstein's formula (1931) for calculating the total extent of admixture.

of the parental populations in each of the nine hybrid series he studied was of European extraction but the other parents were of various origin. Yet there is a remarkable concordance between the conclusions derived from the samples of different hybrid populations. These show that none of the distributions of biometrically variable characters depart markedly from the symmetrical and unimodal type, and that in general the mean of a hybrid distribution is somewhere intermediate between the parental means. Trevor also found that usually the hybrids are not appreciably more variable than their parents and may even be of intermediate or indeed of lower variability. The latter situation occurred in the Rehoboth Bastards and the Norfolk Islanders. The relatively low variability of hybrid populations was also noted by Wagner (1932) and occurs even in hybrids which are formed by the miscegenation of very different phenotypes.

The simplest basis for a difference in a multifactorially determined character is complete homozygosity of the two forms for different sets of unlinked alleles, whose effects are equal and cumulative. The variability of races differing in this way would be entirely of environmental origin, but while this, in general, is a very unlikely state of affairs, it has been suggested earlier that it is probably very nearly true for such characters as skin colour, at least so far as the genes for large inter-racial differences are concerned. If all the genes for the maximum development of the character are in one race, e.g.,  $AA$ ,  $BB$ ,  $CC \dots$  and all their alleles for its minimum development in the other  $A^1A^1$ ,  $B^1B^1$ ,  $C^1C^1 \dots$  the first generation hybrid population will be composed exclusively of multiple heterozygotes,  $AA^1$ ,  $BB^1$ ,  $CC^1 \dots$  and will therefore be strictly intermediate in character and no more variable than either of the parental populations.

When segregation occurs in the formation of the  $F_2$  and subsequent generations derived by random mating entirely from it, the mean of the character remains the same but the genetically determined variability obviously increases. The number of phenotype classes is  $2n + 1$  where  $n$  is the number of factor pairs involved in the parental difference, and these classes<sup>3</sup> appear in the frequency of the coefficients of the binomial expansion with the power  $2n$ . As  $n$  increases the

<sup>3</sup> The frequency of any particular class  $r$  is  $\frac{\frac{1}{2n}}{r-1} \frac{1}{2n-(r-1)}$

classes become less distinguishable until the distribution is continuous and normal. The magnitude of the variability, then, depends upon the number of factor pairs responsible for the character difference. When this is small the likelihood of segregating a particular parental combination of genes is high and the distribution extends from one parental form to the other, but when the difference between the parents is due to many factor pairs the probability of obtaining a parental combination is remote, the distribution is compressed and the variance therefore much smaller.

If in simply inherited conditions, races differ principally in the frequency with which the same genes occur, it may reasonably be asked whether variations in gene frequency can account entirely for the difference between populations in some quantitative character. The mean of the model hybrid population just mentioned can obviously be altered by changing in the same direction the frequency of some or all of one set of alleles from 50 per cent., but any alteration of this frequency *which produces a change of mean* skews the distribution to some extent. Nevertheless if the number of factors responsible for a particular character is large, the phenotypes which are determined by the genes in low frequency are so rare that much of the skewness is concealed. As a consequence, however, populations whose means differ because they contain different frequencies of the same genes, will also have different variabilities. The variance is greatest when all the responsible genes have a frequency of 50 per cent. and diminishes progressively as the frequency with which homozygotes are formed increases. Hybridization between populations differentiated in this way will produce intermediacy of mean and either a greater or intermediate variance.

In reality the situation is much more complicated than either of these models. Races no doubt differ both in having different frequencies of the same genes and in totally different genes. Since, even in the latter case, the parents are themselves likely to be heterozygous at a number of loci, multiple alleles must occur in the hybrid population. There will also be effects from dominance, linkage and locus interaction, but the general proposition, that the greater the number of factors responsible for a particular difference, the more symmetrical is the distribution and the lower is the variability of the segregating population, is of wide relevance. One of the effects of linkage is to increase the chances of getting at least  $F_2$  recombinations very similar to the parental types so that fewer factors seem to be

involved than actually are. In other words, linkage will initially tend to keep the variance of a hybrid population high. On the other hand dominance may function to conceal parental intra-racial variability. Muller (1936) in fact has shown that if the intra-racial variability of a character in each of the two parent races is due to numerous recessives of individually rather low frequency, and if these genes are at different loci in the two races, the variability of the component of a character due to such genes would be lower in the mixed race than in the parent races. This is a consequence of the lowering of each allele frequency in the hybrid population and therefore smaller likelihood of obtaining homozygous recessives. It may well compensate or indeed overcompensate for the effects of inter-racial differences. It must also be mentioned that the measurements analyzed by Trevor were collected from established hybrid populations which had passed through a number of generations. Further, only information on adults was available. The populations, therefore, had been exposed to natural selection whose effects could also have tended to reduce variability.

Little attention has as yet been given to the variety of combinations of different biometrical characters in hybrid populations but these seem to be far fewer than the theoretical number. Some of the hybrids of Negro-Hottentot-Bushman origin are said to have the small jaws of Bushmen and the large teeth of Negroes or vice versa, and Davenport and Steggerda (1929) report that some Jamaican hybrids combine the long legs of Negroes with the shorter arms of Europeans. The evidence for these so-called 'disharmonies', however, particularly the latter, is not good.

There are a number of reasons why not all possible combinations of parental characters are found. It has been shown that if the number of factors responsible for a particular single character difference is large, the likelihood of segregating a parental combination is remote; obviously the probability of obtaining two parental combinations in a single individual is the product of the probability of obtaining each separately. Then there are the effects of linkage which releases the variability slowly so that initially only a fraction of the potential genic combinations will arise. Affinity between parental chromosomes will have a similar effect (Wallace, 1958). Finally it is unlikely that at least most dimensional characters have a completely different genetic basis.

It may be concluded then that there is a Mendelian explanation for

all the phenomena that have been biometrically observed in human hybrid populations, though much is still to be learned about the way particular race differences are inherited.

#### THE BIOLOGICAL FITNESS OF HYBRID POPULATIONS

There can be little doubt that the genetic bases for racial differences have been produced by natural selection and that racial characters are adaptive, facilitating survival under the conditions in which they originated. Although little is known about survival value of characters which distinguish the major races of man, many of the morphological differences are probably due to some component of climate (Coon, Garn and Birdsell, 1950). The causes for the differences in blood group, and similar simply inherited character frequencies, are even more obscure. All that can be said is that when, as is probably the case, the responsible genes are part of a balanced polymorphism maintained by heterozygous advantage, their frequency will be determined by the relative fitness of the homozygotes.

Some aspects of biological fitness, the components of which have been discussed, among others, by Thoday (1953) and Waddington (1958), need to be considered. The comparative fitness of two genes may be defined as their proportionate representation from one generation to the next. Similarly, the comparative fitness of two individuals is their differential contribution to the next generation. Individual fitness is a function of viability (somatic fitness) and fertility (reproductive fitness). It is determined ultimately by the adaptiveness of characters and the interaction of their effects and is as dependent on the environment as on the genotype: a form superior in one environment may well be inferior to a second in another. In considering fitness, characters may be regarded as having, in varying degrees, two facets: one is the particular function that the character performs, the other is its dependence upon the orderly integration of the effects of other characters. The latter is an actual component of vigour, measures of which will give estimates of overall fitness.

The fitness of a population is a more complex entity and can be expressed in a number of different ways. From the evolutionary point of view the most meaningful is the likelihood of persistence in an ever changing environment, whilst ecologically the fitness of a population may be expressed as its success, as evidenced by numbers, at exploiting some particular environment. Although both these ex-

pressions depend upon other things, such as the genetic structure of the population and the extent of phenotypic variety, both are obviously largely determined by the vigour of the contained individuals, whose average fitness is therefore a convenient measure of population fitness. Finally, the frequency with which 'abnormalities', either pathological or supervital, occur is an aspect of a population's fitness. This is a particularly important factor in man where the fitness of a few individuals can determine the fitness of the entire population.

Since human hybrid populations have intermediate gene frequencies and the average morphological phenotype is intermediate, the simplest proposition is that they will be of intermediate fitness in either parental environment for the particular functions that the genes control and the characters perform. This is certainly likely to be the case for the incidence of erythroblastosis foetalis due to rhesus incompatibility. In some races rhesus negative individuals are very rare and such populations have a negligible incidence of the disease. Other populations, however, are polymorphic and though the rhesus negative gene rarely reaches a frequency of 50 per cent., haemolytic disease of the new-born is by no means uncommon. If races differing in the frequency of this gene hybridize, the incidence of the disease will obviously be generally intermediate in the hybrid population. Differences in other blood group and similar polymorphisms may lead to comparable situations either from the secondary consequences of the polymorphism, as in the above case, or the primary cause. The same will occur when races differ in the incidence of deleterious mutant genes.

However, so far as other aspects of human hybrid fitness are concerned nothing can be said with certainty, since although there has been an enormous amount of speculation no comprehensive experimental studies have ever been made. It is therefore necessary to consider what little is established in the framework of the known consequences of animal and plant hybridization. It is, of course, quite impermissible to assume that the crossing of populations within one species will have the same general effects as hybridizing even populations of equivalent taxonomic rank in another, but if a phenomenon is repeatedly found in a number of widely different species, it is most likely that it will occur in others.

Intermediacy of hybrids in some component of fitness has frequently been observed in animals. Particularly interesting are Rhoad's



(1940) findings that hybrids between temperate and tropical breeds of cattle have intermediate heat tolerances, which depend precisely upon the relative amount of the parental genetic contributions, since it has been suggested that many of the differences between human races are due to climatic selection. It has also been reported that the intelligence quotient of Amerindian-European hybrids is related to the extent of the admixture, but in this case it is probable that a direct effect of the environment is responsible (discussed in Boyd, 1950).

However, it has long been known that when different varieties of cultivated plants and different breeds of domesticated animals are crossed, the first generation hybrids are frequently, though not invariably, larger, more viable and more fertile than either of their parents. Some or all of these characteristics may also occur in first generation hybrids between different wild populations of the same species and sometimes even when generally considered good species are hybridized. Clausen (1951) found that the  $F_1$  hybrids between two climatic races of the plant *Potentilla glandulosa* were able to produce the appropriate phenotypes for adaptation to either of the parental environments. Similarly, Vetukhiv (1953, 1956, 1957) has shown that the viability, longevity and fecundity of  $F_1$  hybrids between different geographical populations of *Drosophila pseudoobscura* is typically greater than that of the parental populations, and Brncic (1954) has discovered that if a third chromosome is transferred from one geographical population of this species on to the genetic background of another, the viability of the heterozygote is greater than that of flies whose two third chromosomes come from the same geographical area. The only known evidence of a possibly comparable phenomenon in man to these found by Vetukhiv and Brncic is the greater stature of the  $F_1$  Pitcairn hybrids than either of the parents (Shapiro, 1929).

In recent years, it has also been repeatedly shown in a variety of organisms that heterozygotes are more fit than homozygotes in a number of different ways such as homeostasis, adaptability and fertility, and at the more particular level the superiority of the heterozygote over either homozygotes is the most likely cause for most balanced polymorphisms (Fisher, 1930).

Two hypotheses have been put forward to explain this hybrid vigour or heterosis. One is that, within wide limits, heterozygosity *per se* confers fitness (East, 1936; Lerner, 1954); the other that vigour depends upon the nature of particular genes and their integration

into a balanced genotype (East and Jones, 1919; Mather, 1955). The heterosis that follows the crossing of cultivated plants and domesticated animals gives little immediate information as to which is the more important of these two causes, since these organisms have invariably been inbred to some extent in an attempt to fix commercially desirable qualities. The very production of homozygosity obviously implies a disturbance of genic balance. Inbreeding exposes in some lines the deleterious recessives which must be continually present in the genotype and which are normally sheltered in the majority of randomly or outbreeding organisms by their adaptively superior dominants. While it is conceivable that all desirable dominants could be fixed in one line the likelihood is very remote, though some animals have been inbred with little or no effect on a component of vigour (East and Jones, 1919). Quite apart from the possible general effects of an increase in heterozygosity which occurs when such forms are outbred, it is not surprising, therefore, that the hybrids have greater vigour than either parent. Deleterious recessives are re-concealed and the naturally selected genetic balance is restored.

This form of heterosis is unlikely to occur when major races of man hybridize, but the average increase in body size which has taken place in recent times in many parts of the world may well be largely due in part to the break up of small and therefore relatively inbred isolates (Hulse, 1957). As Dobzhansky (1950) has pointed out, however, it is unsafe to assume categorically that an increase in size is always symptomatic of adaptive heterosis. Although it is desirable to the plant and animal breeder, 'luxuriance' may sometimes occur with a general reduction of overall fitness. Nevertheless that part of the widespread increase in human body size which is of genetic origin is probably truly heterotic.

The greater vigour of  $F_1$  interpopulation hybrids and the findings of Wallace (1955) that fitness in *Drosophila melanogaster* is related to the degree of heterozygosity support the thesis that heterozygosity *per se* confers fitness. If this were the only cause for heterosis all or most hybridization would tend to increase the average somatic fitness of individuals in a population, but in general it seems more likely that the particular genic content is the most important factor. Thus Mather (1955) has pointed out that heterosis is only a regular feature in naturally outbreeding organisms, and that although overdominance has frequently been reported, it has never been shown to occur in the

absence of interlocus interaction. Further fitness in *Drosophila* is not always proportional to the degree of heterozygosity. It is not surprising then that there is sometimes a complete breakdown of fitness in subsequent generations to the  $F_1$ . Vetukhiv found this in the interpopulation hybrids of *Drosophila pseudoobscura* which he studied: the vigour of the  $F_2$ s being not only less than the  $F_1$ s, which would be expected on the heterozygosity *per se* hypothesis, but often less than the parental populations. Similarly, a breakdown in fitness was observed by Brncic when the chromosome of geographically foreign origin was broken up by crossing over and Wallace (1955), in addition to demonstrating the effects of heterozygosity, has also shown in *Drosophila melanogaster* that the viability of flies with 'original' chromosomes is greater than those with 'derived' chromosomes. Dobzhansky and Pavlovsky (1958) on hybridizing geographic races of *Drosophila paulistorum* and *D. willistoni*, which differed in the frequency of inversion heterozygotes, found that the frequency of these heterozygotes fell to or below the frequency levels in the parental races having the fewest inversions. They conclude that 'the superior fitness of the inversion heterozygotes depends upon co-adaptation of the gene complexes which the chromosomes carry. In hybrid populations these gene complexes are broken up by crossing over, with a consequent loss of heterosis.' A somewhat different form of genetic unbalance has been found by Ford (1955) in crosses between races of the Lesser Yellow underwing (*Triphaena comes*). Because the dominance of a particular gene had been built up by different modifiers in the two races, there was a complete breakdown of dominance in the hybrids.

All these results suggest that in general the fitness of inter-racial hybrid populations, as measured by the average fitness of the component individuals, is intermediate or lower than that of the parents. Since it is likely that the maximum attainable level of adaptedness is achieved in most races and genetic inertia is only likely to limit the acquisition of general improvements, this is not an unexpected conclusion and explains why in most organisms hybrid zones are usually narrow (Mayr, 1942). It would be surprising if the introgression into a population of genes, some of which to all intents and purposes would be like mutants, generally did not adversely disturb the genic balance.

It does not follow that the results of inter-racial hybridization are always disadvantageous or that if fitness were expressed in some other

way hybrid populations might not be superior. It is quite possible that there are many more genetic differences between races of *Drosophila* species than between races of other species. Even in this genus, the  $F_2$  interpopulation hybrids of *D. paulistorum* that Vetukhiv studied did not differ significantly in viability from the parents and although there was a breakdown of fitness as measured by longevity in  $F_2$  interpopulation hybrids of *D. pseudoobscura* reared at 25° C., there was little or none at 16° C. (Vetukhiv, 1957). It has also been shown in this species that although heterozygote heterosis is initially lost in interpopulation hybrids, in some experiments it was later re-established (Dobzhansky and Pavlovsky, 1953).

If the effects on individual fitness are not too severe, periodic hybridization will certainly facilitate the persistence of a species by providing a greater variety of genes on which selection can act. For instance, if two populations have the same degree of development of a character, but this is genetically determined in different ways and a change of environment requires a further development of this character, left to themselves each population may have to await the origin of appropriate mutations, but by hybridizing will usually provide a gene pool from which the required phenotype can arise immediately.

It is impossible to say how far these conclusions are applicable to the human situation. General impressions have convinced most unbiased observers that established human hybrids suffer no obvious physical disadvantage and it seems probable that the genetic basis to developmental integration is similar in all races. The results of plant and animal hybridization should nevertheless not be lightly dismissed and one would certainly expect a difference in the capacity of hybrids and their parents to adapt to the particular components of the environmental extremes which produced the parental differences. In either of the environments the hybrids should in general be intermediate with the parents being the most fit in their own environment and the least fit in the other. However, with the constant advances in technology which can provide individuals with the environment they require, such differences are becoming progressively less important. No reference has been made to mental attributes or qualities of personality, not only because the causes for differences in these characters are poorly understood, but also because, in general, the standards of fitness usually erected for these characters are not primarily biological, e.g., what a given group of individuals may

consider desirable. It has been pointed out, however, that the fitness of human populations is in many ways determined by a few exceptional individuals. It is possible that by combining qualities of both races very exceptional individuals will arise, but if this is so, such 'abnormals' will occur at both ends of the distribution of the character or character complex. Finally it may be said with certainty that intermittent hybridization has been one of the most important factors preventing the breakup of mankind into a number of allopatric species. Such speciation restricts the broad evolutionary potential of a group because it limits both the spread, and the sharing, of genes. There can be little doubt that the reticulate nature of human evolution has greatly facilitated man's biological success.

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### GLOSSARY

- ALLELE (ALLELOMORPH):** One of two or more genes which occupy corresponding loci. Only two at the most can normally be present in any one individual.
- CHROMOSOMES:** The intranuclear threads on which genes are arranged in linear order. Typically they occur in homologous pairs in somatic tissue and as single sets in the sex cells.
- CLINE:** A gradient of gene frequency (genocline) or phenotype (phenocline) through a continuous population (J. S. Huxley).
- DOMINANCE:** A gene is said to be dominant to one of its alleles when it expresses itself in the same way whether this allele is present or not.
- DRIFT:** Changes in the gene frequency of a population due to chance. Sewall Wright has shown that random extinction of genes can occur in small populations if there is little or no selection for them. It is now generally believed that drift plays little part in evolution.
- GENE:** A heritable particle which can determine the characteristics of an organism and is located in the cell nucleus on one or other of the chromosomes.
- HETEROSIS:** The phenomenon of a hybrid showing greater vigour than either of its parents.
- HETEROZYGOTE:** The result of the fusion of sex cells whose genes at one or more corresponding loci are different. The term is also applied to individuals in which homologous chromosomes are different either in the arrangement or quantity of their genes.

**HOMEOSTASIS:** The capacity of an organism to physiologically and developmentally compensate for changes in the external environment which tend to lower its vigour.

**HOMOZYGOTE:** The result of the fusion of sex cells whose genes are the same both in quality and arrangement. May refer to single or multiple gene pairs.

**INVERSION:** A segment of a chromosome which has been reversed.

**LINKAGE:** Genes are said to be linked when, because they occur on the same chromosome, they do not segregate independently of each other, but tend to be transmitted together.

**LOCUS:** The point on a chromosome occupied by a particular gene and its alleles.

**MUTATION:** 'The inception of a heritable variation' (E. B. Ford). It results in a mutant gene or chromosome which can give rise to mutant characters.

**OVERDOMINANCE:** The complementary action of alleles producing in a first generation hybrid characters whose development falls outside their range in the parents.

**PANMIXIS:** Unlimited random mating.

**PHENOTYPE:** The characteristics of an organism produced by the interaction of its genes with each other and with the environment.

**POLYMORPHISM:** 'The occurrence together in the same habitat of two or more forms of a species in such proportions that the rarest of them cannot be maintained merely by recurrent mutation' (E. B. Ford).

(i) **Transient:** a temporary polymorphism occurring while one form is in the process of replacing another.

(ii) **Balanced:** a relatively permanent polymorphism maintained by a balance of opposed selective forces.

**POLYTYPY:** The existence within one species of two or more distinct races, i.e., subspecies.

**RECESSIVENESS:** A gene is said to be recessive to one of its alleles when it fails to express itself if the other allele is present.

**VIGOUR:** The viability and fecundity of an organism.

## 4. A Geneticist's View of Human Variability

*by J. A. Fraser Roberts*

**B**ROADLY speaking, human inherited variation falls rather sharply into two distinct categories. The first is discontinuous or qualitative, the second continuous or quantitative. Discontinuous variation depends on single major genes, or on a few major genes. Continuous variation depends on the combined action of many genes, which are additive in their effect. The distinction is not absolute. The two, or three, phenotypes produced by a pair of major genes may be modified by the action of multifactorial systems; and, conversely, major genes may have other and minor effects which contribute their quota to multifactorial variation. Furthermore, environmental influences may obscure the pattern of genetic variation; I will say a little more about this later. Nevertheless the distinction is a very real and useful one.

The action of major genes may be further subdivided under two heads. First, there are the unconditionally harmful genes, producing an endless variety of defects and deformities. They are very numerous in the aggregate, but their rates of manifestation are very low, being kept down to something not greatly in excess of mutation rates; and mutation is, of course, a rare event. Man is not peculiar in his possession of these numerous harmful genes. They are found in very large numbers in wild species, which get on very well in spite of them. They occur, of course, in all human populations; but undoubtedly many of them vary in frequency in different populations. Nevertheless, they are of very minor interest in physical anthropology. There are several reasons for this, which I have attempted to elaborate on another occasion.

The other kind of major gene difference is much more important. This is a polymorphism, when both of a pair of alleles, or alternative genes, have appreciable frequencies, or two, or more, of a set of multiple alleles have appreciable frequencies. That is, they are 'normal' genes. Occasionally a polymorphism is transient, which is what happens when a favourable gene is spreading throughout a species. But much more often a polymorphism is relatively stable and may persist for a very long period of time. This is balanced poly-

morphism, the existence of more than one type being under some, or all, conditions of advantage to the species, so that an equilibrium is maintained by a balance of selective forces.

The most notable examples of clear-cut human polymorphisms are provided by the various blood group systems, and also, in those regions in which the genes are common, by the abnormal haemoglobins. But many of the most obvious kinds of human variation, including a number in which different peoples show striking differences, fall essentially into the same category. The genetics of skin colour, or eye colour, or hair form are not by any means entirely simple, but, when extreme types are considered, there are often plain indications of an underlying basis of single gene pairs, or of relatively few pairs. The complications are due to gene interaction, to modifying genes, and to environmental modification, but it is often clear that truly qualitative genetic differences are present.

The second type of human variation, and much the most important, is quantitative. There is a continuous range from one extreme to the other, with no sudden breaks anywhere. We may now consider some of the differences between the two types, polymorphic on the one hand and multifactorial on the other. (I will not use the word polygenic, so as to avoid any possible confusion with polymorphic, which sounds rather similar.) In the first place, as has just been said, multifactorial variation is much the more important. It is, of course, necessary to define what one means by important. The simplest answer is to say it is more important because it is much more frequent; it underlies the great bulk of genetic variation. Those characteristics that enable the species to survive, and to adapt itself to new conditions, or to changing conditions, are far more often determined by multifactorial inheritance than by differences in major genes.

The second distinction between the two kinds of variation is very important; it concerns something, moreover, which is sometimes overlooked, or not given the weight it deserves. This is the question of hidden variation. With a single gene pair some of the underlying potential variation may be hidden. For example, people with two blood group *A* genes are indistinguishable from those with one *A* gene and one *O* gene. Hence some of the variability is concealed. But the concealed variation occurring with single gene pairs or simple polymorphic systems is trivial compared to what is concealed, or latent, or potential, with multifactorial systems. It is easy to understand some of the reasons for this. Let us consider a metrical charac-



ter determined by a series of genes, *Aa*, *Bb*, *Cc* and so forth, the alleles denoted by capital letters making for larger measurements and those by small letters for smaller measurements. In a randomly breeding population very few individuals will have all, or nearly all, the large letter genes or all the small letter genes. Most persons will have a mixture of both. Now if we could, as might be done experimentally, unscramble these genes, we could produce a visible range of variation vastly greater than the variation we ordinarily see. It is no exaggeration to say that in a room of any twenty to thirty people the genes are there which would permit the development of a strain with an average height of six foot eight, or alternatively of four foot ten.

This potential variation is, of course, of vast importance to a species. This is what gives it flexibility and enables it to adapt itself to adverse conditions or diverse conditions. It is, in fact, the basic stuff of evolution, the raw material upon which natural selection can act. If we need examples of the range of hidden variation the animal breeder has provided them in profusion. In quite a few generations he has produced cows which at one extreme give incredible quantities of milk; at the other, cows whose fate it is to be the mothers of the obese Smithfield ox, and which produce so little milk that they cannot rear their own calves; at one extreme sheep with relatively sparse coats, but renowned for their mutton, creatures so broad in the beam that if they thoughtlessly roll over on to their backs they may die if not righted by human agency; at the other extreme sheep which have so much wool that they would get entangled in any thorn bush, are in constant danger of being eaten alive by the larvae of the green-bottle fly, and whose coats, if not periodically removed by man, would strangle them. Now it seems to me incredible that the bulk of these prodigies could have been achieved so rapidly by the animal breeder simply by taking advantage of major mutations that happened to suit his purpose. What he has done is to bring to the surface the hidden variability that was there all the time. By rigorous selection he obtained more and more genes acting in the same direction; by rigorous inbreeding he fixed the type. Wild species, including ourselves, are very different. We are averages, and very fortunately so. If the protection of man were removed, his prize stocks would very quickly join the sabre-toothed tiger and the mastodon. But even so, one wonders how fully successful he has been in converting potential into actual variation. Perhaps after fearful losses types adapted to a

wild life might yet be restored. But I must leave this digression, which I must admit I find rather fascinating.

A word should perhaps be said about environmental variation, and particularly its relation to genetic variation. Here I think polymorphic systems as a general rule show less environmental interactions than do multifactorial systems. With the blood groups or the abnormal haemoglobins there are no environmental interactions. That is why they are so useful in anthropological studies. With other traits of a less clear-cut character there often are environmental interactions, though on the average not so much as with metrical characters. It is indeed difficult to find an example of a metrical character wholly determined by inheritance. One beautiful example has been demonstrated, however. This is finger print ridge counts, utilized so profitably by Dr. Holt. For the various relationships the regressions are almost precisely those corresponding to complete hereditary multifactorial determination, with, incidentally, an absence of dominance effects. With other metrical characters the environmental component is sometimes fairly small, it is true, but often it is considerable or large in relation to the genetic variation.

Man is, of course, an extremely widely dispersed species, his habitat covering a very large part of the earth's surface. In these circumstances isolation must have been a very potent factor in his history. If what was once a single population becomes isolated into two separate groups, we shall expect those groups to diverge in respect of their genetic constitution. Part of this is no doubt due to chance, that is, to genetic drift. The effectiveness of genetic drift is inversely proportional to the size of populations. With small isolated communities it may be of considerable importance, but it seems likely that much of the most influential factors in the divergence of groups are adaptive. Possible environments differ widely in their physical conditions, in their flora and fauna, and, what may be particularly effective, in parasitic organisms. On the evolutionary time scale the divergence of two isolated groups is likely to be very rapid indeed. The very high frequency of the sickling gene over most of Africa and in a few other parts of the world, and its absence, or almost total absence, in many others, is a notable example.

We should not, I think, be too exclusively concerned with geographical isolation. There is psychological isolation as well. Strains which have become divergent may preserve, or even increase, their differences by preferential mating, even when geographical barriers

no longer obtain. The tendency for like to mate with like, whatever its psychological basis, or its mechanisms, rooted in upbringing and tradition, is a potent factor in maintaining or producing diversity in the human species.

It is natural to expect psychological bars to mating in man. But in fact these can be observed in the higher animals as well. I will give you one example which I had the opportunity of observing thirty years ago. About 1907 wild Mouflon sheep from Corsica and Sardinia were brought to Lambay Island, off the coast of County Dublin. Now the wild Mouflon is closely related to domesticated sheep. It would probably not be far wrong to say that it is identical with, or at least closely similar to, the ancestral stock from which tame sheep were developed; and this during a period of time which is very short compared with the history of the human species. Attempts to cross wild and tame sheep in zoos had proved uniformly unsuccessful, and this was equally true under the natural conditions on Lambay Island; for in addition to the wild Mouflon sheep there was a large flock of tame sheep grazing on the same unenclosed land; but no intercrossing occurred. During the First World War some of the Mouflon were shot, and afterwards their numbers declined, until at one mating season there were left only two Mouflon rams and one ewe. Still no intercrossing occurred. By the following mating season the Mouflon ewe had died, leaving just the two rams; the following spring twenty tame ewes produced crossbred lambs. Incidentally these crossbreds proved to be fully fertile. There had been for twenty years no geographical bar, and not the slightest physiological bar. The bar was purely psychological, and as long as a single wild female survived it was absolute.

With divergence in relation to discontinuous variation we cannot exclude the effect of rare mutant genes. Occasionally it might happen that a particular gene is unconditionally unfavourable in one environment, and so extremely rare. In another it might be favourable enough to produce a balanced polymorphism, as with sickling. Or it might even be that a gene unconditionally unfavourable in one environment is unconditionally favourable in another; then an absolute difference would be established, absolute in the sense that, apart from the very slight disturbing effect of mutation, every member of one population would be distinguishable from every member of another. Much more often, however, the populations would diverge in relative frequencies of the genes forming polymorphic systems.

Again, the complete loss of a gene, or its complete prevalence, cannot be excluded. With continuous variation the picture will be one of increasing metrical divergence. But the important point to remember here is that a visible divergence which looks considerable is utilizing only a small fraction of the total potential variability, the great bulk of which remains hidden.

When we come to an application of genetic principles, such as those I have attempted to outline, to questions of race and race differences, the points of view of the geneticist and the anthropologist tend, I think, to be rather different. If the problem is raised about possible absolute differences between races, such that every member of one can be distinguished unequivocally from every member of another, the geneticist—though I ought to speak for myself, and not geneticists in general—the geneticist would reply that such differences could exist. The anthropologist, on the other hand, asks: 'Do they?' It is difficult for the geneticist—again I speak for myself—to perceive any fundamental distinction between an absolute difference and a partial difference. If two groups can be distinguished so that only one individual in a thousand is misclassified, or even one in a hundred, or one in fifty, that is much closer to an absolute difference than it is to a difference giving an accuracy of classification of only sixty or seventy per cent. Again, the geneticist is not unduly worried by the existence of types intermediate between two extreme types. They are likely to be of frequent occurrence.

Another unhelpful thought of the geneticist is that different genes cannot be expected to tell the same story; this is a consequence of particulate inheritance. Peoples derived from a theoretical ancestral stock might all resemble the ancestral stock in regard to some genes, or diverge in a variety of ways from the ancestral stock and from each other in regard to other genes. Nor must we forget parallel evolution. Anatole France in *Penguin Island* remarks how simple history is when there is only one historian. But here the different historians are describing not the same history but different bits of it, coincident in time, it is true, but perhaps quite unrelated to each other. Synthesis may indeed be difficult, but ultimately there will be infinitely more information than if all genes told the same story.

For forty years only two usable blood group systems were known, *ABO* and *MN*. All the genes are of practically universal occurrence and the differences between races in gene frequencies, though definite and striking enough, are on the whole rather moderate. It was usual

to quote these examples as typical racial differences provided one dealt with uncomplicated single genes. The picture is now very different. First came the complete, or almost complete, absence of Rhesus negatives over large parts of the world. Then it was seen that the combination of Rhesus genes known as *cDe* or *R<sub>0</sub>* attains a frequency of about 60 per cent. over most of Africa, and nowhere else unaffected by African influence a frequency exceeding 4 per cent. Now there are other differences, even more extreme. Ninety per cent. of the Duffy blood group genes in West Africa are of a kind not yet identified in a European. If today 200 specimens of blood were sent from West Africa to the Lister Institute, 100 from West Africans and 100 from English people, the serologists (given the availability of certain rare antisera) could classify them into the two groups with an accuracy of probably 95 per cent. It would not be at all surprising if within the next ten years the rate of misclassification were to be reduced to something like one in a thousand. In a sort of way, there is nothing very remarkable about this. A child of six, looking at the subjects themselves, could do even better. But it does emphasize the point that qualitative differences in the frequency of major genes may on occasion effect complete, or nearly complete, separation.

When we turn to continuous variation, however, the picture is totally different. Average differences there are, but usually the picture is one of overlapping curves of distribution. I doubt whether there are any metrical characters which show no overlap at all, that is, that the smallest measurement in one race exceeds the largest in another. Perhaps the Pygmies are a special case, but I do not know what the genetic basis of this difference may be. It has been shown, however, that Dinka and Pygmy statures just about overlap. But even granting that a metrical difference between two populations were absolute, it is absolute only in terms of visible variation and certainly not in terms of total variation. Consider two overlapping normal curves. If we cut off the lower 90 per cent. they look strikingly different. If we cut off the lower 95 per cent. they might not overlap at all. But the great bulk of the variation, the hidden variation, is still overlapping to a very large extent indeed. In other words, if two human populations were to differ absolutely in a metrical characteristic both in fact would still possess the genes to develop quite quickly, given selection, a strain which would exceed the average of the other. This is quite different from qualitative differences. Here divergence may well have passed the point of no return.

In the example used earlier a roomful of people have the genes that would permit the development of a strain of six foot eight inches, or alternatively four foot ten inches, but a roomful of Englishmen do not have the genes which could make, in qualitative characteristics, an African Negro; nor have a roomful of African Negroes the genes for making an Englishman. But with metrical characters what in fact we usually see is a moderate average difference with much overlapping. The average difference between two populations is usually much smaller than differences between individuals belonging to the same populations. And, of course, it is very small indeed compared to the hidden variation.

I want to end with what seems to me to be the most practical lesson of all. The child, or the ordinary observer, sees the obvious and striking differences. And this is just what interests the physical anthropologist also. For many years anthropologists sought the will o' the wisp of the non-adaptive character, the harmless quirk devoid of selective value, by definition a useless difference, of no consequence to survival or progress. Even if that concept must be abandoned, the useful differences are still those which are striking or identifiable, but essentially of minor consequence to survival and well-being. A polymorphic difference may show varying gene frequencies in different populations, but clearly both types, or all types, have reasonable survival value. The striking characteristics that distinguish races are the marks of peoples who have successfully adapted themselves to particular environments. The physical anthropologist is, of course, entirely right in his choice. He wants indicators to tell him about the ancestry, migrations, intercrossings and inter-relationships of mankind. These are the characters best able to do so. But the valuable difference anthropologically, and the obvious difference on casual inspection, is not the important difference. The great majority of these are multifactorial, continuous, overlapping, the bit of the iceberg above the surface. In fact, the things that races share in common are much more important than the things that divide them.

A glossary of technical terms is appended to Dr. Ainsworth Harrison's paper.

## 5. Race and Intelligence

*by Philip E. Vernon*

IT has often happened in the history of psychology and other social sciences that fierce controversies have raged which have turned out later to be little more than battles about words. This would almost certainly seem to be true of many of the problems of intelligence testing. Most of the trouble about racial differences has arisen because the layman and, I fear, many psychologists, are apt to use the term in two quite different senses. On the one hand people think of intelligence as native wit—a basic, inherited quality which is independent of upbringing and education, and which therefore governs the ultimate potentialities of an individual or group. On the other hand, when they describe a child or adult as intelligent they are referring to his actual, present, all-round thinking capacities, his comprehension, reasoning, learning and so on. But these capacities—as most psychologists would nowadays admit—are largely acquired, or built up through the interaction of the child's genetic potentiality with a more, or less, stimulating environment.

The Canadian neurologist D. O. Hebb has helped to clarify our ideas by naming these two conceptions Intelligence A and Intelligence B respectively. Intelligence A represents the basic capacity of the nervous system, as determined by the genes, for building up dispositions, habits, percepts and concepts; whereas Intelligence B is the end-product, the efficiency of the mind as developed up to that point. Now Intelligence A is hypothetical only; we have no means of observing it directly, let alone measuring it. Nevertheless it is a reasonable hypothesis which is, indeed, necessitated by several proven facts. For example, there is the fact that the measured Intelligence B of orphans is still correlated to some extent with that of their true parents who have had nothing to do with their upbringing. There is also the fact that the measured intelligence of children often differs appreciably from that of their brothers, sisters and parents, despite their being reared in a fairly uniform environment. For while environmentalistic theories could account for the generally higher Intelligence B of a professor's child than of a labourer's child, they could

not explain—as genetic theory can—why professors sometimes have dull offspring, or labourers very bright ones.

At the same time there is equally strong evidence that the Intelligence B which we measure fairly effectively by our tests is considerably dependent on environmental factors. For example, the intelligence of foster-children correlates to some extent with that of their foster-parents as well as with their true parents. Similarly, identical twins separated at birth and brought up in very different environments sometimes show I.Q. differences ranging up to about 20 points, despite their identical heredity. I have myself been able to show that the length and quality of schooling received in adolescence affects intellectual growth. Boys of the same I.Q. at eleven years, after four years in a good grammar school or a relatively poor modern school, showed average differences amounting to 12 I.Q. points. Again, recruits who came into the Royal Navy from civilian jobs where they would have continued to exercise their mental faculties after leaving school showed a longer growth and a slower decline in intelligence than those who came from intellectually unstimulating semi-skilled and labouring jobs. Note too that this latter result was obtained with a non-verbal intelligence test—the Progressive Matrices—which might appear to be independent of educational influences.

Professor Burt and others have carefully analysed the test results of identical twins brought up separately or together, of fraternal twins, siblings and foster-children, and have reached the conclusion that the hereditary contribution to differences in measured intelligence is still vastly greater than that of environmental factors, possibly in the ratio of four or more to one. There are varying views as to the legitimacy of such calculations, but the figures seem to me reasonable *provided that* one is concerned only with children within a fairly uniform culture. While it is obvious that different homes in Britain or in white America do differ in the amount of stimulation to intellectual growth that they offer, yet these differences are perhaps not very large while children are building up the simpler mental skills. Almost all children are able to experience similar objects and symbols, and from five on they all receive a highly standardized form of schooling. But after eleven, when they are acquiring the more abstract concepts and complex types of thinking, the quality of their education varies more widely; and after fifteen the majority get no further schooling; they enter jobs and indulge in leisure pursuits



which make little use of their intelligence; whereas the privileged minority receive more intense and lengthy stimulation, and more often enter vocations that continue to exercise their minds. Hence we would expect, as we seem to find, clearer evidence of environmental influences at this stage. And if we go on to consider more widely different upbringings, say the American white versus the American Negro, or the British with the Australian Aborigine, it must surely follow that Burt's calculations no longer hold. The environmental contribution is likely to be so large that no valid comparisons whatever can be drawn as regards Intelligence A.

The pioneer psychologists, Binet, Burt, Terman, Ballard and their followers, hoped that their tests really were getting at this basic Intelligence A, since they chose test items to depend chiefly on common knowledge and on concepts which were available to everyone, and avoided items involving more specialized information and schooling. However, as early as 1923, Hugh Gordon showed that the children of canal barges and gypsies were seriously handicapped on Binet tests by their lack of schooling. Hence psychologists changed their tack to some extent, and admitted that such tests measured intelligence only when educational opportunity had been normal. Many claimed, too, that by using performance or non-language tests based on pictures, shapes and blocks, drawing mazes and other practical tasks, they could avoid this educational bias and measure innate ability once more. True, the differences between educationally-handicapped and normal children decrease with such material, but it is quite absurd to maintain that it is culturally neutral, or that Western European and American white children do not have more experience than the children of American Negroes or other more primitive peoples with pictures, blocks and the like. Thus Nadel and Biesheuvel have pointed out that certain African cultures do not readily recognize pictures or diagrams on paper, though they can readily perceive the same shapes carved on ivory or leather. Likewise, F. C. Bartlett observed that Swazi Natives could not arrange coloured pegs in a certain pattern although they habitually planted trees according to that same pattern. Another nice example is quoted by DuBois. A certain performance test commonly used in the U.S.A. and Britain is based on the amount of detail present in a child's free drawing of a man. DuBois gave this Draw-a-Man test and a similar Draw-a-Horse test to American Indian and white children. The whites did best on the man test, but were much poorer on the horse

test, indeed averaging an I.Q. of only 74 according to Indian standards.

Let me put the contemporary psychological viewpoint in another way. Intelligence (that is Intelligence B) is not a unitary faculty, the same all the world over; it is a name for the highest level of complexity of man's mental powers and these powers are, naturally, shaped by the symbols and modes of thought of the particular culture. The Australian Aborigine's mind develops in a different physical, social and linguistic environment from that of the English child. Hence, even if they started with the same genetic potentiality or Intelligence A, the Australian would inevitably perform very poorly at tests devised by psychologists who themselves think in terms of English conceptions. Moreover we simply cannot infer from Intelligence B to Intelligence A; there is no way of telling whether the Australian's genes are inferior, except perhaps by bringing him up in a completely English environment so that his English Intelligence B could then be fairly measured.

We will now survey some of the literature on racial and ethnic differences from this viewpoint, though without making any pretence to exhaustiveness.

The most important early investigation was that carried out in 1917-18, when nearly two million recruits to the American Army were tested, and were classified by country of origin or descent. Men of Northern and Western European stock all obtained very similar average scores, but Italians, Russians, Poles and Balkan peoples were considerably lower, and American Negroes lower still. These results were widely thought to reflect differences in innate intelligence, though critics soon pointed out, first, that the samples tested were unlikely to be representative (those of British descent, for example, came largely from early pioneering stock, whereas the Southern and Eastern Europeans were mostly poorer peasant immigrants), and second, that the alleged order of national intelligence was obviously also the order of socio-economic advancement and educational opportunity. Indeed, perhaps the main importance of the results is that, far from proving the existence of racial differences, they undermined the belief of many psychologists in the existence of any such differences. Actually, of course, they did nothing to *disprove* the possibility; it would be quite plausible to maintain that the superior groups, because of their better intelligence, had achieved greater economic and educational advances.

Another very widely discussed research was that of S. D. Porteus with his non-verbal test of drawing paths through mazes of increasing complexity. Porteus has always regarded this as a test of planning ability and practical judgement rather than of intelligence; but, so far as its reliability allows, it always correlates highly with general intelligence tests. He obtained quite widely different mean scores from many parts of the world—Africa, Hawaii and Australia—all of them lower than those of average whites. Speaking without any anthropological knowledge, I understand that anthropologists have found his results rather puzzling. Apparently some of the most primitive groups surpassed other more culturally advanced groups. Porteus himself seems to suggest that the resemblance of the task to tracking gives an advantage to desert-living Australian Aborigines; but other explanations are possible. First, the test being an individual one, the numbers tested in any one group were necessarily small; hence it could hardly have been possible to ensure that the samples were representative. And second, it has been pointed out by C. W. Mann that the higher-scoring groups were usually those which had access to government or mission schools, while the poorer-scoring ones were devoid of all educational facilities. Thus, as I suggested earlier, even tests which are superficially culture-free seem in fact to be considerably dependent on education for stimulating the capacity to cope with abstract reasoning problems.

Since the 1920s by far the greatest amount of work has been done by psychologists on white-Negro differences in the U.S.A., both because of their practical importance for educational and social planning, and because such vast numbers of representatives of these races, having the same mother-tongue and similar cultural backgrounds, are readily available for testing. The result shown by the original Army test is generally confirmed, the mean I.Q. for Negroes being not much higher than 80, as compared with the white figure of 100. Note that even this difference is consistent with a tremendous amount of overlapping. There is really very little difference in the total ranges of I.Q.s; some Negroes score as high as 180 or more, and some whites down to below 20. However there are fewer at these extremes; thus only about 10 per cent. of Negroes score higher than the average whites, and only 10 per cent. of whites lower than the average Negro. Actually, Dr. Anastasi, who is the author of the most up-to-date textbook, *Differential Psychology*, quotes 30 per cent. instead of 10 per cent. This would correspond to a mean Negro I.Q. of 92 instead

of my figure of 81. But I suspect that she is referring to the Negro population of New York, which is certainly superior to the general average. That there are considerable variations in different parts of the States was also brought out by the finding, in 1918, that the average test performance of Northern urban Negroes was actually superior to that of whites in several of the Southern States.

This at once raises the question of whether Northern Negroes do better because their economic circumstances and educational facilities are more nearly equivalent to those of whites, or whether the more intelligent stocks have migrated, leaving the duller families in the deep South. Klineberg's research in New York is often quoted, where he compared the children of Negroes who had migrated for various periods. On the Stanford-Binet test, the mean for those who had less than one year's residence in New York was 81.4, while for those who had over four years' residence the figure was 87.4—just about the same as that of New-York-born Negro children. He also checked that the mean school grade in Southern schools of children who migrated was not superior to that of children who remained behind. Thus this research gives strong support to the environmentalistic explanation. On a group written intelligence test the improvement was still more marked (from 72 to 94) whereas on a non-verbal, spatial test, years of residence seemed to make no consistent difference.

Perhaps even better controlled was E. S. Lee's similar research in Philadelphia, where group verbal and non-verbal tests were given every year or two to some 600 local-born Negro children and to some 900 Southern-born who had attended Philadelphia schools for various periods. Among the latter the mean I.Q. when first tested was uniformly around 87, and this figure rose gradually to 93 when they had been city-educated for up to nine years. Moreover among the former, local-born, the mean was about  $93\frac{1}{2}$  regardless of age and length of schooling, except that in a group which had also attended nursery schools the mean was  $96\frac{1}{2}$ .

Yet another type of evidence is provided by tests of children of five and below, before differences in schooling could affect their scores. Several researches report no differences between white and Negro infants and pre-school children, but these have always been in cities where, as we have seen, Negroes tend anyhow to come nearer to the white average. However, in a study by McGraw in Florida, the Negro babies were inferior on psychological tests; as they were also

inferior in physical development and nutrition, other factors may have been responsible.

In general, then, we can conclude that educational and socio-economic differences play an important part in Negro-white intelligence differences. Yet at the same time it is noteworthy that the reported improvements with improved circumstances are fairly small—only about 6 I.Q. points—and that a considerable inferiority generally remains among Negroes even when their education is the same as that of whites. Nevertheless it is practically impossible to ensure that all environmental conditions are held constant. Thus when Negroes go to the same schools, they still usually show much lower attendance figures, and their parents tend to give them less help and encouragement than do parents of white children. Again it is obvious that Negroes are generally handicapped in occupational level; but even if the same proportions of professionals, business, clerical and skilled parents are selected as among whites, the chances are that the Negroes fall at the lower ends of each economic group, and are more poorly paid; in other words—that they are not really matched with whites belonging to the same occupational groups.

There is yet another factor in test performance which tends to favour Western European and N. American whites—what may be termed the cultural attitude towards intellectual effort. Sociological studies such as those of Havighurst and Davis at Chicago suggest that the Negro culture is more permissive with young children; much less stress is laid on intellectual achievement, on competition and getting tasks done quickly. It comes much more naturally to the white middle-class child to try his best at intelligence test items, whereas the lower working-class white, and particularly the non-white, child does not so readily see the point of it. Indeed, this motivational or attitude factor is even more difficult to control than linguistic, educational or socio-economic influences. Even quite near home, in the Hebridean islands, it showed itself in a research by Christina Smith. She gave English tests translated into Gaelic and non-verbal tests to Hebridean children and found a distinct inferiority to English norms, largely because the tests were speeded. The whole tempo of life in these remote islands is quite different; thus the children tackled the tests in quite a different frame of mind. Another relevant finding is that Negroes generally perform better when tested by a Negro than when tested by a white adult. According to Biesheuvel such motivational factors have an even greater effect among most groups of

Africans, and we may suspect that they are important with Australian Aborigines, whose natural reaction to difficult problems is more likely to be group consultation, or reference to the elders, than individual effort.

We can see then that those psychologists and anthropologists who would attribute all test differences to differences in upbringing have quite a strong case. We can also agree that no one has yet proven the existence of any genuine racial or ethnic differences in Intelligence A. But also we must recognize that no one has disproved them. It would, for example, be an entirely reasonable hypothesis that the Negro has much the same genes as the white underlying early perceptual and motor development, but that he tends to lack some of the genes which underlie the later maturation of advanced conceptual thought. This would fit in with a lot of the facts, though it cannot, as yet, be confirmed or contradicted. Then, too, it would surely be reasonable to suggest that groups which show very different cultural advancement, while living in similar physical circumstances, must differ in innate equipment. Some of the Australian Aborigines, for example, had plenty of access to the equable and fertile parts of Australia, yet they lagged far behind the Maoris in New Zealand.

However, as I tried to make clear at the outset, this kind of argumentation is fruitless. We would do better to admit, first that we do not know whether there are differences in Intelligence A, and are unlikely to be able to find out; and secondly that it is really Intelligence B that concerns us, and this is best regarded as the level of development of those intellectual capacities which a particular culture favours. If we are talking of white middle-class Intelligence B, then the differences revealed by American or British tests are perfectly genuine; the average Negro and still more the Bushman or Aborigine is inferior in the capacities which our culture values. Equally, of course, Bushmen are entitled to devise tests which sample their own intellectual operations and to show that we are inferior on these. Thus it is not because intelligence tests are faulty that some groups score lower than others; the low-scoring groups really are inferior in educational and occupational potentiality and achievement, or anything else that tests are used to predict. In other words, the tests are all the better for being culturally-biased, so long as we do not think of their results as telling us anything about Intelligence A.

One other important point is that our doubts and difficulties over using tests to measure differences *between* groups need not in any

way inhibit the effective use of tests *within* groups. During the Second World War, for example, intelligence and other tests were as valuable for selecting skilled tradesmen and N.C.O.s among African and Indian recruits as they were in this country, though naturally British tests required considerable modifications in order to tap the abilities of, say, Gurkhas. Biesheuvel has shown particular ingenuity in developing batteries of performance tests which can be given to large groups of African mineworkers, employing cinema films to get across the instructions in the vernacular. In principle it is undesirable to base such tests on adaptations of existing European and American ones. Rather they should derive from a careful anthropological, psychological and linguistic study of the particular culture so as to be representative of the ways in which members of the culture normally think. There is tremendous scope here for valuable comparative studies, as well as for the application of tests for practical educational and vocational purposes, once we can live down the misguided controversies of the past.

## 6. Race Relations: A Psycho-analytical Interpretation

by Marie Jahoda

IT is with a twofold hesitancy that I approach the topic assigned to me in this symposium. First, I am not a professional psycho-analyst. Even though my work with psycho-analysts on the problem of race relations has strengthened my conviction that no other theory of personality equals psycho-analysis in power and comprehensiveness, I cannot give you that detailed insight into the role of race relations in the psychic economy which can only be obtained through clinical practice.

The second, and perhaps more important, reason for my hesitation stems from the subject matter itself. Race relations are, of course, a complex affair; they are influenced by biological, historical, political, social, economic and psychological factors. Inevitably, the focus on any one of these determinants entails the danger of what one might call the explanatory imperialism of any one discipline. Psycho-analytic interpretations of social phenomena are often accused of just that. I hesitate, because while I wish to avoid such accusation, I do believe that a psychological interpretation of race relations is, indeed, in a class by itself and not just on the same level with other scientific approaches. Not that psychology can explain all aspects of race relations; but no explanation of the phenomena can do without the psychological component.

Let me illustrate the crucial importance of a psychological interpretation by reference to the Notting Hill riots. Most of the published explanations of what happened there dispensed with the psychological factors. Instead, the housing shortage, fear of unemployment, the alien customs of the West Indians, their noisiness at night and other social and economic factors were held responsible for the disturbance. All this is true, as Dan Jacobson eloquently pointed out in an article in *Encounter* (December, 1958), and yet singularly unconvincing as an explanation of what happened. Of course it is necessary and right to draw attention to the appalling conditions under which many people, white and coloured alike, live



in that area. But the nine youths who went on a 'nigger-hunt', thus starting the riots, were not suffering from housing shortage or unemployment. The mob who joined in the subsequent violence did not seek out those whose nightly amusements might have kept them awake. Even if we assume that some coloured people in the area did harm to some white people, the riots were not just a brutal yet rational retaliation for injuries received. The passion of hate which erupted in Notting Hill stemmed from deeper sources. Jacobson calls it a 'problem of feeling', and he compares it rightly to the persecution of Jews throughout history, to the situation in South Africa and Little Rock.

The task of a psycho-analytic interpretation is to explain this crisis of feeling, which is historically and geographically so widespread and which induces 'in-groups' to unleash violence in feeling and action against 'out-groups'. The problem has, of course, similarities with that of understanding other forms of violence. But there is one crucial difference: in our civilization, everybody but the perpetrator of an act of individual violence readily condemns the act. In the case of race relations there is, as a rule, a curious permissiveness about its occurrence. And even where racial violence is publicly condemned, as is fortunately the rule in this country, there are many who admit to a sympathetic understanding of the wholesale dislike for certain 'out-groups'. Our problem here is to understand both the crudely violent and the polite antagonism against groups, or against individuals for the sole reason that they are members of such groups.

Psycho-analytic theory suggests that the understanding of an attitude should be sought on two inter-related levels: first, there is the function of the fully developed attitude at a given moment in the psychic economy of the individual; second, the psycho-genetic origin of the attitude. Both aspects must be seen in their close interplay with external reality.

There exists a large body of research on the reasons people give for their dislike of various out-groups. If you ask people in the United States to explain their antagonism against Negroes, the chance is that they will use one or more of the following phrases: they are inferior, they are lower class, they are low in intelligence, they force out the whites, they are lazy, sloppy, dirty, immoral, over-sexed, troublesome, childish, they smell badly, carry diseases. If you want to know why Jews are disliked, you may learn that they have all the money, control business, are capitalists, but are also Com-

munists; are clannish but intrude on other people's affairs; are smart, intellectuals, over-energetic, work too hard but never do manual labour; and are noisy, bad-mannered and emotional.

Before one takes this array of statements as data for a psycho-analytic interpretation a question must be faced: Are these perhaps realistic descriptions of what the majority of Negroes and Jews are like? If these descriptions are broadly speaking accurate, racial antagonism must obviously be interpreted differently than if they are figments of the imagination.

There is every reason to believe that groups which do not intermingle freely with members of other groups, which have traditions of long standing, particular ways of bringing up children, specific social institutions and social values, will approve the dominance of certain psychological characteristics in their members. The fact of belonging to a group which is the target of strong racial antagonism must be assumed to be a particularly weighty influence on the behaviour and character of members of that group. It is conceivable that many Negroes are lazy because white supremacy denies them the fruit of industriousness; that others crave for sex relations with white women because the white community has established a taboo against it, a symbol of their inferiority against which they rebel. Equally, it is possible that centuries of persecution have made some Jews clannish while others try to intrude into the Gentile world in an effort to escape their fate. Loewenstein<sup>1</sup> has examined the particular psychological conflict in which Jews find themselves in the Western world, and has concluded that while the 'so-called Jewish psychological traits are common to all human beings . . . they may take on a special tinge due to the special situation in which Jews live'. There is a general consensus that such psychological differences between races as may exist express themselves in different frequencies of qualities in any one race, while the variation within each group is greater than the variation between groups. The actual frequencies of psychological attributes within any one racial group are not known. Nothing but a colossal statistical investigation could discover whether the Jews and Negroes actually are in their majority what so many members of other groups firmly believe them to be.

But, it could be argued, it is a small and pardonable mistake if, in the absence of scientific knowledge, those who allege certain psycho-

<sup>1</sup> R. M. Loewenstein, *Christians and Jews* (New York, International Universities Press, 1951).

logical characteristics of racial groups base their judgement not on a view of the entire out-group but are content to infer it from the qualities of those out-group members whom they have personally met. Before we proceed to a psycho-analytic interpretation of their reasons, then, the adequacy of this inference must be scrutinized. In psycho-analytic terminology, the adequacy of reality testing by persons with racial antagonisms is in question.

Actually, there is a growing body of empirical evidence to show that inadequate reality testing is characteristic of those who feel hostile to racial out-groups. A drastic demonstration of this was given by Professor Hartley<sup>2</sup> who studied racial antagonism against three *non-existent* groups whom he called the Danireans, the Piraneans and the Wallonians. A large proportion of the people questioned about them disliked them strongly and advocated restrictive measures against them.

Similarly, R. K. Merton<sup>3</sup> demonstrated that the psychological qualities given as reasons for disliking an out-group are actually often qualities which are highly appreciated when found in a member of the in-group. In comparing current beliefs about Jews and Japanese in the U.S.A. with those about Abraham Lincoln he says: 'Did Lincoln work far into the night? This testifies that he was industrious, resolute, perseverant and eager to realise his capacities to the full. Do the out-group Jews or Japanese keep these same hours? This only bears witness to their sweatshop mentality, their ruthless under-cutting of American standards, their unfair competitive practices. Is the in-group hero frugal, thrifty and sparing? Then the out-group villain is stingy, miserly and penny-pinching,' and so on.

Several psycho-analytically oriented studies have taken the problem a step further by actually investigating the nature of the experience with members of the disliked group. In some cases it was found that the attitude persisted without any personal contact whatsoever. In others, the description of contact with any Negro or Jew was bare of all individual characteristics: these persons could report only the typical preconceived notion of what a member of the out-group was like. But perhaps most interesting were those who were able to evaluate the individuals whom they met correctly without letting such an experience interfere with their general judgement of

<sup>2</sup> E. L. Hartley, *Problems in Prejudice* (New York, King's Crown Press, 1946).

<sup>3</sup> R. K. Merton, *Social Theory and Social Structure* (Glencoe, Illinois, Free Press, 1949).

the group. In a study of Army veterans <sup>4</sup> one man was quite explicit on his general dislike for Jews, and then continued: 'There was one Jewish fellow in our outfit whom I liked especially. He wasn't like the ordinary run of Jews, that's why I remember him.' This is a typical case of the well-known 'some of my best friends are Jews, but . . .'. Reality in such cases is assigned the place of an exception; the rule is established by untested preconceptions.

Psycho-analysis assumes that such failure or inadequacy in reality testing indicates that the attitude in question meets a need of the individual which he is unable or unwilling to satisfy more rationally. The content of the beliefs about other groups, then, are rationalizations: that is to say, a dislike is justified by socially acceptable pseudo-reasons which serve to disguise the deeper motivation.

Frequently, the particular content of the belief about the out-group provides an indication of the type of motivation involved. There is in the two lists of stereotyped beliefs I gave you before, a significant difference. While the Negroes are called lazy, dirty and oversexed, that is without control over certain infantile desires, the accusations against the Jews, that they control industry, have all the money, are ambitious and push ahead, go in the opposite direction: they are too well able to conquer their primitive tendencies. In psycho-analytic terminology, the Negro is accused of letting his Id dominate the Ego; the Jew of letting his Super-ego dominate. You may feel that this division of content, so convenient for psycho-analytic thought, actually reflects some aspects of the national character of each group. Be that as it may, it is worth pointing out that, under the Nazi régime, where the Jews were the major target for out-group hostility, the stereotyped beliefs combined what the American scene permits to be separated. There, the Jews symbolized the conflicts both with the Id and the Super-ego.<sup>5</sup>

Individuals vary, of course, in their selection of what they believe to be the attributes of an out-group. There are some whose hostility is unspecific; they experience a diffuse emotional hatred without feeling the need for rationalization. Others accept the entire gamut of concrete accusations against the outsiders which are current within their own cultural group. In between these extreme positions there are some whose rationalizations seem to fill a specific function for

<sup>4</sup> B. Bettelheim and M. Janowitz, *Dynamics of Prejudice* (New York, Harpers, 1950).

<sup>5</sup> See Bettelheim and Janowitz, *op. cit.*

their personalities. In a study using detailed case histories of persons under psycho-analytic treatment who happened to be anti-Semitic,<sup>6</sup> ample evidence was found for this. One patient, for example, disliked the Jews because they were 'emotional and untamed' but also 'shrewd, capable and industrious'. The life history of this man demonstrated that he himself was shrewd, capable and industrious, but unable to experience any warm emotion. This inability was actually one of the reasons which made him look for help in psycho-analytic treatment. There it emerged that very early in life this man had been driven to accept being happy and being good as an irreconcilable dichotomy. Having chosen the path of goodness and success and suppression of feeling he suffered from loneliness and emotional emptiness. The culturally prevalent stereotype that Jews combine emotion with success was a fearful reminder that he had built his life on a false premise. By hating the Jews for the combination of qualities that he had denied himself, he tried to defend his own unsatisfactory choice of a way of life. For him it would have made little psychological sense to rationalize his anti-Semitism by accusing the Jews of being either capitalists, communists or bad-mannered. Neither would it have made sense to hate Negroes or Catholics, because the very combination of qualities meaningful for him is not contained in the cultural stereotype of either of these groups.

The psychological mechanisms employed in order to support a precarious psychic equilibrium in this case as in many others are projection, denial and displacement. Long before psycho-analysis had taught us to understand these mechanisms of ego-defence, the Father of the Church, Tertullian, noticed their existence: 'If the Tiber overflows into the city, if the Nile does not flow into the countryside, if the heavens remain unmoved, if the earth quakes, if there is famine and pestilence, at once the cry goes up: to the lions with the Christians!'

With the help of psycho-analysis we can go beyond his insight in specifying the nature of the psychological gain derived from racial antagonism: the hatred of the out-groups serves the function of supporting oneself. However spurious the relief that comes from this type of defence, it is a vitally important function in the psychic economy of the insecure person. It is easier to reject others than to

<sup>6</sup> N. W. Ackerman and M. Jahoda, *Anti-Semitism and Emotional Disorder* (New York, Harpers, 1950).

reject oneself. Yet, what one rejects in others often reveals what is wrong in oneself.

So far, I have tried to show that there is a strong irrational component in racial antagonism and that the beliefs held by many members of an in-group about an out-group reveal conflicts in the members of the in-group. While racial out-groups are judged without adequate reality testing, it would be wrong to assume that reality testing is completely absent: the social status assigned to an out-group within a larger society is often the kernel of truth in racial stereotyping.

So important is that partial link with reality which substantiates the antagonism, that the in-group uses its power to create conditions which will compel the out-group to become as the stereotype prescribes. A vicious cycle is set in motion, an example of what Merton<sup>7</sup> has called the 'self-fulfilling prophecy': in some Southern parts of the U.S.A., for example, the Negroes are rejected because they are lower class and uneducated. Because they are rejected, opportunities for advancement and better education are denied to them; as a consequence, the vast majority of Southern Negroes suffer indeed from low status and low education, thus apparently justifying the original discrimination.

Let me now turn to an interpretation of the origin of this racial antagonism which is for some people psychologically so necessary that they are impervious to its social consequences and to the full reality of their own experiences.

Is racial antagonism an emotional disease? I believe not, certainly not in the customary psychiatric sense of the term. Some of its manifestations may well be the result of neurotic or psychotic reinforcements. But there is ample evidence that hostility against an out-group can go together with a psychic structure that otherwise functions adequately. As indicated before, this channelling of hostility may even help to maintain a person's equilibrium.

Under these circumstances it is reasonable to assume that racial antagonism represents the effort to deal with a basic and probably universal human conflict.

A first clue to the nature of this conflict stems from studies concerned with the relation between hostility against out-groups and social status. Contrary to popular belief, there is no clear-cut relationship with current social status. But the relationship becomes strong

<sup>7</sup> R. K. Merton, *op. cit.*

when a person's social mobility is considered; that is when his feelings of tolerance or intolerance are related to his movement up and down the social ladder. In the study of veterans mentioned before it was found that the highest frequency of intolerance against racial out-groups occurred among those who were socially in a worse position at the time of the study than they had been in before the war. What further strengthens the clue to the nature of the conflict is that among a small group of veterans who had undergone a rapid *upward* social mobility, intolerance was also very high, higher than among the stable group or those who had only gradually improved their lot. Obviously, a certain amount of frustration helps to bring to the fore the conflict, whatever it is, to which racial antagonism is an attempted solution. But the frustration is not simply created by economic deprivation, otherwise the frequency of the phenomenon when one's status is improved would remain unexplained. What is the psychological experience, common to upward and downward social mobility? There is much evidence to suggest that any sudden change in external conditions of life brings the individual face to face with the question of his own identity. In the life-long effort of every human being to define himself to himself, to acquire and maintain an identity as a person, the external circumstances of his existence are used as props. His name, home, occupation, habits and established relations with others serve to define who he is. Any change in these conditions requiring change in his habitual responses to the world and producing changes in the way other people respond to him brings to the fore old anxieties about himself. Some people, to be sure, can discover new aspects of their own identity through life experience without feeling deeply threatened. But most of us would rather not do without the props which our social existence offers us in maintaining and developing our identity and inner security.

The idea that uncertainty about oneself is at the basis of racial antagonism is strengthened by evidence from research on the authoritarian personality.<sup>8</sup> As you know, these studies set out to discover the type of personality which is most often given to strong antagonism against out-groups. The style of life of this authoritarian personality was found to be one which needed particularly strong external props in order to maintain a semblance of inner security. To be able to identify themselves clearly authoritarian persons need

<sup>8</sup> T. W. Adorno, E. Frenkel-Brunswick, D. J. Levinson, R. N. Sanford, *The Authoritarian Personality* (New York, Harpers, 1950).

a black-and-white perception of the world. Conventions and traditions are of great concern to them as ways of assigning themselves a clear-cut status. They do not look into their own or other people's motives for fear of blurring the sharp divisions which serve to tell them where they belong and who they are.

Psycho-analytic theory and practice support the idea of the universality of this conflict, which manifests itself first and forcefully in early childhood when the infant's complete dependence on parental love and care is gradually replaced by the development of internalized standards, that is by the development of a Super-ego. This is achieved through a process of identification with one or both parents. It is inherent in the social role of parenthood that this identification should be fraught with difficulties. Not only rejecting or emotionally exploiting parents make the process hard to achieve. Every parent has to control, reject and punish in order to make a child fit to meet the standards of society. As the child's personality develops, these inevitable controls and restrictions create doubts about his own worth, about being needed or wanted or loved by anybody. The confusion of the self-image, inevitable for all at one stage in their development, may remain as a basic feature of personality. Case histories of persons who feel strong racial antagonism show that the identity conflict of these persons was particularly severe on account of disunity between their parents or disturbed relations between parents and child. In any case, to the extent that the child maintains his early insecurity—and, to some extent, probably everybody does—he experiences the apparently clear-cut identity of someone else as evidence of a personal failure, which is deeply resented. If he can make himself believe that the other's seemingly clear identity connotes inferiority then the personal confusion is easier to bear. At least he is not a Negro, or not a Jew, however uncertain he is about everything else. Being visibly different is then an out-group attribute which on one level threatens the insecure personality, and on another is a spurious help for defining oneself. The weaker the personality, the stronger the threat experienced in the face of difference and the stronger the need to reject. Fundamentally, then, the antagonism against the out-group is the result of self-rejection.

In members of socially underprivileged out-groups this same conflict of identity can lead to colour prejudice among the Negroes, anti-Semitism among Jews. What those who experience this cannot accept in their own individual personalities is attributed to the group into



which they were born. In order to acquire some self-respect, they attempt to identify with their enemy whose standards and values they imitate by hating the group into which they were born.

Bronowski, in his essay on violence,<sup>9</sup> recognizes the ubiquity of the identity conflict when he interprets individual violence as a result of the wish to demonstrate that one is a man 'in a world in which the sense of being unneeded walks with us like a shadow'.

In the unending effort to come to terms with oneself the establishment of one's sexual identity plays a crucial part. Unresolved conflicts in that area may well be the most frequent source of anxiety and insecurity. It is, thus, not surprising that racial antagonism has often a strong sexual component. In South Africa and some parts of the United States the taboos against inter-racial sex relations have been incorporated into the law of the land. The very fact that such laws need to be established testifies to the existence of strong tendencies to break them; the fact that in the U.S.A. only about 20 per cent. of the Negro population are of unmixed African origin suggests the frequency with which the taboo is broken. Psycho-analytic theory maintains that the first sexual desire of the child is directed to his parents. Fulfilment of this desire is forbidden and is strongly repressed. But the repression is incomplete, and the attraction of the forbidden fruit stems from this fact. At the same time, the secret belief that out-group members have a clearer identity leads to the belief that they are sexually superior to oneself, a superiority which creates deep jealousies and strengthens one's own insecurity. The by now familiar mechanism of hating in others what is wrong in oneself leads to the intense emotion of horror, disgust and fascination about inter-racial sex relations.

Racial antagonism, according to this psycho-analytic interpretation, is then a deeply meaningful support to the individual in his striving for a solution to the basic human conflict of personal identity. Do we therefore have to accept it as an inevitable aspect of our civilization?

I believe that the psychological need which leads to racial antagonism is indeed universal, and will be with us for the foreseeable future. Equally, I believe that the organization of society into in-groups whose power and prestige stem in part from denying these to out-groups will be slow to change. Thus there will be available for a long time to come a convenient projection screen on to which we can

<sup>9</sup> J. Bronowski, *The Face of Violence* (London, Turnstile Press, 1954).

throw as our weakness requires ambivalence, envy, fear and hate. Yet some of us have learned that a momentarily convenient appeasement of inner conflict is not a permanent solution; and even that the recognition of our unresolved conflict is preferable to a spurious solution at the expense of others. There exist in many countries strong groups in public life which, in accordance with their consciences, advocate and partially achieve the elimination of race as the principle for the definition of an out-group, thus creating a social climate in which violent acting-out of racial antagonism is frowned upon. The inner conflict which makes race a convenient pseudo-solution also makes the individual yearn to be accepted within the society in which he lives. If that society condemns violence against another race he will comply, just as he will comply if it condones violence. Psychologically speaking there is less difference than is often assumed between the politely prejudiced and the violently aggressive. Socially, there is all the difference in the world between societies which favour the one or the other. In line with a psycho-analytic interpretation of race relations, social controls of the manifestations of antagonism are the most realistic safeguards of a civilized society.

There are actually a number of studies which show that under specified conditions of personal contact with members of an out-group the antagonism disappears.<sup>10</sup> What happens then is not a solution of the conflict, but so ubiquitous and compelling an opportunity exists to test reality against preconceptions, that the previous apparent solution can no longer stand up. The link between the inner conflict and the existence of out-groups can be broken, even if the conflict and the out-groups continue to exist.

You may feel that such evidence as I have produced to support a psycho-analytic interpretation of race relations fits the theory all too easily. In that case let me call in aid a remark made by Charles Darwin himself: 'How odd it is that anyone should not see that all observation must be for or against some view, if it is to be of any service.'

<sup>10</sup> See, for example, Wilner, Walkley and Cook, *Inter-racial Housing, 1955* (University of Minnesota Press) and *Psychiatric Aspects of School Desegregation* (Group for the Advancement of Psychiatry, Report No. 37, U.S.A., 1957).

## 7. Race and Sociology in History and Theory

by Donald G. MacRae

### I

ALTHOUGH the social composition, structure and relations of minorities in Britain have been the subject in recent years of a number of books—some of them good—and of many theses and dissertations,<sup>1</sup> yet it would probably be true to say that the majority of sociologists in this country have thought of this as being a subject both irrelevant and distasteful. It was distasteful because it had associations with the racial theories of the Nazis, and therefore seemed somehow to threaten both 'guilt by association' and confrontation with that most disturbing of modern problems: how was Naziism possible? It was irrelevant because the debate about the influence of biological differentia on society had long gone stale, and both sociology and social anthropology had made great strides on the assumption that such differentia are sociologically altogether unimportant.

The first of these reactions is comprehensible, if not particularly creditable. There is a sense in which the second is both just and final. It is just and final in the light of modern knowledge, but we do not know what we may learn tomorrow, and the old claim that the last step of biology is the first of sociology may yet be shown to be true. It is, however, just and final today for those societies whose composition is not categorized in terms of race and whose social divisions do not run on racial lines. To attend only to such societies is to do violence to social reality and to neglect the facts of this world and the obligations of science. Morris Ginsberg in his *Sociology*, published a quarter of a century ago, devoted his third chapter to 'Race and Environment'. I used to think this one of the few signs of the book's age that that remarkable work showed: I think so no longer.

Ginsberg formulates three groups of questions: what does race mean in biology, and how far is a biological classification useful 'in the study of the relation between genetic factors and forms of culture

<sup>1</sup> I hope to treat of these descriptive studies of concrete situations in another place.

or civilization'? Do races differ mentally, and if so, does this determine the differences of 'nations or peoples'? Do the answers to these questions help explain or reveal 'the relation between race and culture'?

For the moment I propose a summary answer to these questions as follows: no biological differentia of race have yet been shown to be sociologically significant in themselves or in their consequences—alleged—for capacity or behaviour. They are, however, significant when they permit of racial recognition and ascription in a society where social division is related to a racial ideology. Such an ideology is not necessarily based on the possibility of such recognition, nor are such recognitions, when made, necessarily based on biological as distinct from cultural differentia. I shall return to these points later in this paper. What is significant in them is the claim that race is ideology. What is more it belongs to that part of ideology concerned with social division and, ultimately, conflict. We might take as our text a remark of the late Ruth Benedict that, 'To understand race conflict we need fundamentally to understand *conflict* and not *race*.'

Yet this is not the whole of the matter, for race has been thought by many sociologists in the past to be somehow an explanatory concept, and by no means all of these writers have been ideologues. To understand this we must, I suggest, consider the subject historically. An ideology can, perhaps, be understood without history, understood in purely functional terms: an error in scholarship is explicable only by the tracing of its origins. Such a tracing has another advantage in that it may help us to understand the forms which racial ideology has taken and takes today—a matter of practical importance, for the form of belief influences the content of both belief and action.

The prehistory of racial theories is too extensive a subject even to be sketched here. The Old Testament, the sacred books of India describing and justifying the relations of caste, Chinese attitudes to those not native to the Middle Kingdom, Greek contempt for barbarians, sexual fear and contempt for Negroes in *The Thousand Nights and One Night* and so on are interesting enough but they have not the cogency nor the scholarship for our discussion of them here. I suggest that we begin some three hundred and fifty years ago with an acute, if unscientific, observer of society and widely experienced government agent, Daniel Defoe. Who are the English, he asks,

who despise the Dutch,  
 And rail at new-come foreigners so much;  
 Forgetting that themselves are all derived  
 From the most scoundrel race that ever lived,  
 A horrid crowd of rambling thieves and drones,  
 Who ransacked kingdoms and dispeopled towns:  
 The Pict and painted Briton, treach'rous Scot,  
 By hunger, theft and rapine hither brought;  
 Norwegian pirates, buccaneering Danes,  
 Whose red-haired offspring ev'rywhere remains;  
 Who joined with Norman-French compound the breed  
 From whence your true-born Englishmen proceed?<sup>2</sup>

Defoe, in a way we would all no doubt approve, is reproving racial pride, correcting prejudice, asserting that common kin of all mankind perhaps first discovered in the empire of Alexander the Great. This is the central attitude of the eighteenth century when even the English in India learned the language of their conquests from their Hindu mistresses or 'sleeping dictionaries', and the learned world extolled the virtues of China as delineated in the Jesuit *Confucius, Sinarum Philosophus* of 1697.

The greatest of eighteenth-century sociologists—for the subject existed before the word—Adam Ferguson, was clear that 'polished nations' have only an 'air of superior ingenuity' in their success at the tasks of civilization, and have no innate, but only a social, superiority to 'the savage in his forest'.<sup>3</sup> A fellow countryman of his considered the biological proposition that it would 'be incredible that the Wisdom which framed the universe should have created different species, distinguished only by colour, or thick lips, or a depressed nose, and not by a different nature, and intended for some particular end', only to reject it and argue that 'men must be considered to be of the same species', and that imitation is the major factor in producing 'the Varieties of Mind'.<sup>4</sup>

Some theorists might even extend the doctrine of the unity of mankind with so large a charity that, like Monboddo, they included

<sup>2</sup> *The True-born Englishman*, 1701.

<sup>3</sup> *An Essay on the History of Civil Society*, 2nd ed. (Edinburgh, 1768), p. 281.

<sup>4</sup> John Hunter, *Disputatio Inauguralis . . . de Hominum Varietibus . . .* (1775) in *The Anthropological Treatises of Blumenbach and Hunter* (London, 1865), pp. 362–394. A book published in 1787 by a Presbyterian clergyman interestingly enough also reaches purely environmental conclusions in the context of the young United States—S. Stanhope Smith: *An Essay on the Variety of Complexion and Figure in the Human Species*, pp. 117–118.

within it even the orang-utang. Linnaeus did something similar in his six-fold classification of *homo americanus*, *europaeus*, *asiaticus* and *afer*—all reasonable enough—along with *homo ferus* and *homo monstrosus*. It was J. F. Blumenbach who in 1775 first established modern physical anthropology with his *De Generis Humani Varietate Nativa* and developed the subject by the researches of his long and fruitful career.

In his first edition Blumenbach put forward a four-fold classification, but in the edition of 1781 he divided humanity into five groups—Caucasian, Ethiopian, American, Mongolian and Malay. It is not his fault that the first two of these became part of the vocabulary and legislation of racial intolerance in the United States. Far indeed from countenancing such opinions he argued in all his work strongly in favour of not merely the essential physical unity of all mankind but for our emotive and intellectual unity as well. Theories of the inferiority of Negro stock particularly annoyed him, and he brought forward much anecdotal evidence—some of it both quaint and touching—against such views. I do not know how far Blumenbach was a pioneer in his massive reliance on skull form as a basis for classification and ascription in physical anthropology. Like much else that he did this emphasis has been both scientifically useful and, despite him, ideologically pernicious.

Romanticism, nationalism and the rise of modern philology are contemporaneous and not unconnected features of Europe in the age of the French Revolution and Napoleon and the sour years which followed. It is in their ambience that racialism really emerges both as an ideology and a sociological theory. Scholars from Sir William Jones by way of the brothers Grimm and Max Muller produced not merely the genealogy of the Indo-European languages but the atmosphere in which Aryan language could be identified with an Aryan culture and even an Aryan race in whose name crimes could be committed. The scholars were not responsible for what was done with their discoveries and theories, but much mid-nineteenth-century philological speculation is already tinged with racial ideology.

The great romantic novelists were often given to racial theorizing. Already in the Cromwellian revolution it had been argued that the Cavaliers represented an alien Norman tyranny to be overthrown by the virtuous Saxon common folk.<sup>5</sup> One or two people during the

<sup>5</sup> Defoe, in the poem from which I have quoted, has a reminiscence of this opinion.

French Revolution saw in it a just indignation of Gauls and Latins with the Frankish nobility. The romantics enjoyed this sort of thing. Sir Walter Scott's *Ivanhoe*, you will remember, makes the class struggles and differences of feudal England an affair of self-conscious racial conflict of Saxon and Norman. A novel like *The Fair Maid of Perth* and a narrative poem like *The Lady of the Lake* derive their conflicts from an overt contest of Saxon and Celt, and so on. In Scott's best novels he is, of course, too good a sociologist to use anything but a structural and cultural analysis to explain those relationships and disputes which do not arise directly from the stuff of the individual character of his actors. On the whole it is his less successful work that has been read in schoolrooms.

The greatest of sociological novelists went even further, but the aberration of Balzac in seeing each social type as a species separated by differentia as great as 'celles qui distinguent le boeuf, le lion, l'âne, le corbeau, le requin' etc., happily affected neither his fiction nor its readers. By the middle of the nineteenth century race had become a *deus ex machina* for a good deal of journalism and inferior—though not always negligible—fiction. Charles Kingsley's *Hereward the Wake* for example is full of racialist material whereby eleventh-century Ireland, full of despicable Celts ('Milesians'), is used for propaganda about Victorian religion and politics. Disraeli's Jews gravely teach Young England that 'everything is race'. Sidonia in *Coningsby* indeed puts forward opinions which, harmless and almost playful in themselves, give to the Jews—'a pure race of the Caucasian organization'—a role in European history recognizably akin to the charges later laid against them by means of the *Protocols of the Elders of Zion* and the theorists of German National Socialism.

A richly comic conclusion to this sort of thing will be found later on in a piece of Edwardian science fiction, Sir Arthur Conan Doyle's *The Poison Belt*. There, you will recall, the earth passes through some noxious region of space, and the disturbed and poisoned ether is highly selective in its fell work. The first to succumb are the more emotional and less developed races, and the influence works with enough precision to send into a coma the Slavonic before the Teutonic subjects of the Austrian Empire. It is against this background, at once influenced by and influencing the popular mind, that we must see and try to understand the place of racial theories in sociology.

I shall begin with two writers who are but seldom read though often abused in modern social science—de Gobineau (1816-82) and

H. S. Chamberlain (1855-1926). The French aristocrat is a more important thinker than the germanized Englishman, but both the *Essai sur l'inégalité des races humaines*<sup>6</sup> and *The Foundations of the Nineteenth Century* are penetrating, learned and ingenious books from which something can still be learned—though not about race as a sociological concept.

Why do societies decline? Gobineau, in a manner familiar to the reader of Durkheim, begins by eliminating theories which have been offered. This is still valuable, for it is useful and salutary to observe how masterfully he deals with theories of luxury, vice, tyranny, 'bad' institutions, etc., as causes of social decay. After all it was as recently as 1958 that our Parliament heard a Government speaker in debate offer homosexuality as the cause of the decay of the ancient world. And many social scientists still have a touching faith in the inevitable nemesis of 'bad'—i.e., corrupt, tyrannous or undemocratic—institutions.

This elimination—and the method of eliminations is always dangerous—leaves Gobineau with race mixture as his explanation of decline. Races are real, biologically unequal, and man is polygenetic. Doom follows: the sexual appetite is various, miscegenation continues and mankind tends ever to biological and therefore social mediocrity and the stagnation of a homogeneous mass society. The creative, lordly Aryan is going under, and with him all hope for civilization.

Intellectually, Gobineau's error is to assume that there is a single phenomenon of social decay to be explained by a single cause, but his opinions are, of course, more than an affair of the rational intellect: they are rooted deep in the pessimism of a French aristocrat in the new world of the inheritors of the great revolution—the world of the July Monarchy, the Second Empire, the social system of Balzac's human comedy giving way to the blacker world of Zola where 'l'argent seul est bon'. It is particularly with this pessimistic fatalism that Gobineau's friend Tocqueville reproached him, but it is not hard to understand. The odd figure of Houston Stewart Chamberlain had no such excuse and much less humanity.

Richard Wagner, who had taken his place in the revolutions of 1848 with Bakunin in Dresden, only slowly acquired his racial and discriminatingly anti-Semitic opinions. Chamberlain adopted these,

<sup>6</sup> Interestingly enough an American translation by J. C. Nott antedates the Civil War (Philadelphia, 1856). It is fair to say that the most able Southern defence of slavery, G. Fitzhugh's *Cannibals All!* (Richmond, 1857), is remarkably free from racialism.



combined them with those of Gobineau, read Darwin, and wrote his long, eloquent and pernicious book. 'What is the use', he asks, 'of detailed scientific investigations as to whether there are distinguishable races? whether race has a worth? . . . We turn the tables and say: it is evident that there are such races: it is a fact of direct experience that the quality of the race is of vital importance', and he adds, 'let Disraeli teach us . . .'.<sup>7</sup>

To Gobineau (who also acknowledged Disraeli's influence) he added only two things: fiercer hatred of Jews whose alien nature gains and abuses power, and the post-Darwinian thought that, if races can decline, they can also be revived, reformed and defended in the racial struggle which, 'is above all a struggle for life and death'.<sup>8</sup> Gumpłowicz in *Der Rassenkampf* (1883) and a long series of other works developed similar views with a greater appearance of science. Polygenetically originated races fight blindly, and from their struggles result the state which is always based on conquest, social stratification and law.

Societies are not so simple. Certainly there is struggle, but it is not racial when creative nor creative when racial. And struggle neither exhausts nor explains the history and sociology of the state, of social strata, of retributive justice. The error of the nineteenth-century social thinkers—save perhaps Spencer—was to seek for single, simple explanations, unitary laws subsuming innumerable relationships. Comte and Marx—who, as readers of his correspondence will remember, had his violent racial prejudices—are the most eminent and greatest victims of this tendency which so hindered the development of our subject.

G. V. de Lapouge in his *Les selections sociales* and *L'Aryen, son rôle social* made a more serious attempt to explain the social by race differences and Darwinian selection, while at the same time allowing society itself some creative role. His Aryanism and his theory of racial decline—midway between those of Gobineau and Chamberlain—need not detain us. His use of statistics, his analysis of the mechanisms of social selection in nature and society, and his critique of the theory of progress all entitle him to respect. Histories of sociology usually associate his work with the anthropometric researches of Otto Ammon published in Germany in 1890. To them we owe—if that is the right word—the view that dolichocephalics in Europe

<sup>7</sup> *Foundations of the Nineteenth Century* (London, 1911), vol. I, p. 271.

<sup>8</sup> *Ibid.*

tend to be rich, urban, intelligent, aristocratic, pioneering and, of course, admirable. Unfortunately, they were mistaken in their belief that there is factual evidence for such opinions.

Indeed, not merely is anthropometric evidence lacking; the very constancy of anthropometric indices in different environments and over time is open to severe doubt. And brachycephalics have their defenders: Amintore Fanfani, Italian Prime Minister, in his scholarly days before the last war wrote a still valuable study (1935) translated as *Catholicism, Protestantism and Capitalism*. It concludes, somewhat surprisingly, '... in future research on our subject much attention will be paid to the fact that when the economic activity of the countries of Mediterranean Europe waned, it was at a period when dolichocephalic individuals came into power as elements of the ruling classes. Whereas, the period of the revival of economic activity of Western Europe coincided with the advent of ruling classes prevalently composed of brachycephalic individuals.'<sup>9</sup>

More modest, rigorous and scientific work on the lines of that of Ammon and Lapouge has continued throughout this century, and there has been a confluence in such research of traditions derived from Galtonian psychology and Mendelian genetics. A contemporary American scholar sees it as leading to 'the conclusion that populations of widely different culture should differ genetically in ways which are significant for psychological development. Almost certainly such genetic differences would be of minor importance in causing the depressed status of some racial groups, and would not be a handicap in developing a more technologically advanced civilization.' To my mind the evidence for even these tentative propositions is insufficient, and the conclusion which is offered does not seem to follow. It is: 'The first steps in this direction [a policy of technological development] should alter the basis of selection and lead towards genetic adaptation of the population to the new culture.'<sup>10</sup> I doubt most seriously that we know enough about social selection to say so much.

<sup>9</sup> There is an admirable summary of the evidence on this sort of thing in P. Sorokin, *Contemporary Sociological Theories* (New York, 1928), ch. V, pp. 266-279. I do not know the present status of the work of F. Boas such as his 'Changes in the Bodily Form of Descendants of Immigrants', *American Anthropologist*, XIV, 1912.

<sup>10</sup> J. L. Fuller, 'The Genetic Base: Pathways between Genes and Behavioral Characteristics', in *The Nature and Transmission of the Genetic and Cultural Characteristics of Human Populations* (New York, 1958), p. 111.

## II

Racial explanation disappears from serious sociology with the great generation of the early twentieth century. Pareto, Durkheim, Hobhouse and Max Weber made the issue of race irrelevant by the introduction of new canons of analysis and by their attempt to explain the social by the social—the most useful of methodological principles. Race, by explaining too much too easily, by being susceptible to neither proof nor disproof, explained nothing. Errors born of romanticism, nationalism and the prestige of Darwinian biology could be left behind. Unfortunately, they had deeply affected the popular mind, and through fiction, journalism and pseudo-science took their place almost simultaneously in the politics of international relations, colonialism, and the conduct of internal affairs in culturally heterogeneous societies.

The ideology of race remained as a social fact. I do not think that it created social divisions, but all societies of any complexity *are* divided, and when physical and/or cultural recognition of differences could be made or alien origin ascribed then the ideology could be used to explain the divisions and justify prejudices, discrimination, and violence. And the form these took—or take—is in some measure to be explained by the nature of the ideology.

There is another factor which I believe operates even in societies of the simplest kind held together by 'mechanical solidarity' and presenting a maximum homogeneity as well as in complex societies with a multiplicity of occupational roles. This is the fact that the gap between gratification and desire, personal and social actuality and potentiality, is inevitably such that all men feel an 'alienation'—to use a fashionable word—which can under certain circumstances be relieved by aggressive action. Such action may be particularly cathartic if it is directed against those who are believed to be responsible for this condition, but it can be effective even if its objects are assigned no such responsibility. A good deal of rioting of native Protestants and Catholic Irish in Glasgow and Liverpool is to be explained in this way, though neither historical nor economic factors are negligible. I suspect that this has also been a component of great importance in the recent 'race riots' in West London and Nottingham.

What is involved in being recognizably alien was analysed with

great simplicity and subtlety by Georg Simmel.<sup>11</sup> According to Simmel the stranger is someone close to one with whom one shares only the most common biological and minimal social requirements. (If, I may add, some one biological character such as pigmentation is different, so much the worse.) He is free from one's conventions, taboos and norms. His judgements are made with an almost inhuman objectivity of reason or immediacy of desire. His mobility suggests an enviable freedom to contract out of one's social milieu should he find it burdensome, and this seems unjust. He brings the far near, and this, suggesting the limitations of one's world, is of itself perturbing. I would suggest that all this provides a perfect basis for an ideology of hatred, contempt and fear mixed with envy. Round strangers the invidious ideology of race can accrete in all its manifestations.

But ethnic groups are not just 'strangers'. In a socially stratified society they occupy, usually, only a limited range of positions in the hierarchy of status. Very often this involves them in economic rivalry of an acute kind. In conditions of less than full employment this can produce especially sharp rivalry and conflict in three major areas: that of unskilled labour—where the rivalry may even be that between two or more competing minorities; that of professional organization and work; and that of petty and middle-range trade and industry. Where there are no major physical differentia these conflicts might be expected to disappear and the strangers in one or two generations to become socially invisible. To some degree this happens, but differences in religion and culture may delay or prevent the process and a time of acute social stress even reverse it. Where there are major visible differentia then the social situation, especially if complicated by an originally servile status, may contain no principle tending to its own resolution, and then only deliberate policy decision can have any effect to lessen conflict and act on the ideology.

A social system with low social mobility between its ranks can, indeed, tend under such circumstances to what may be called a situation of quasi-caste. This may find legal expression for its perpetuation, and, if given religious and ritual sanction, even turn into a situation of true caste and be almost ineradicable. Such stable systems establish a *modus vivendi* and possess their own regulatory norms—however burdensome and rooted in hostility. The recent

<sup>11</sup> *Soziologie*, 2nd ed. (Leipzig, 1908), pp. 685-691.

immigrant group which is subject to the ideology of race has no such advantage: it may, for the sort of reasons given by Simmel, produce a certain *anomie*—conducive to violence and conflict—in the larger society which it has entered. It is also likely to experience within itself many of the symptoms of acute *anomie* through quite straightforward tensions, unfamiliarities and solitudes. These may well act as rationalizations for hostility and triggers to aggression, which in turn by increasing the degree of formal organization for defensive purposes of the immigrant ethnic group, provide new excuses for hostility.

The analysis I have offered is, in terms of the values of tolerance and humanity, depressing. A racial ideology and racial conflict are not inevitable in all such ethnically complex situations—as the record, in some ways dark enough, of Portuguese colonialism, of Brazilian society and of immigrant Chinese in parts of South-East Asia abundantly shows. Where they occur they are, alas, likely to be self-perpetuating. Moreover such things and their ideology can be learned—as is perhaps happening today in this country under American influence. It would be a sad paradox if, as race relations in the United States slowly improve under the impact of self-conscious policy, we in Britain were to repeat some of their experience by following their image as learned through an increasing Americanization of our media of mass communication. It is not necessary nor inevitable that we should do so.

The student of social structure and ideology cannot ignore these matters, for they are of great scientific interest and importance. He may also hope that increased knowledge and humane policy to which he can contribute may combine to undo the evil legacies of the past and the tensions of the present in what is, after all, a remarkably just, free and tolerant society, characterized in the ordinary business of life by gentleness of manners and regard for the human rights of others.

## 8. Race Relations in Modern Britain

by Maurice Freedman

LET us assume that there are today some 200,000 coloured people in Britain. The figure is not large, and if it is evidence of the existence of a colour problem in this country, then the problem must be rather small. But in fact there are people who assert that Britain has no colour problem at all and that the animosities which have startled us of late spring from other kinds of wretchedness. The arguments that Britain knows no real colour problem take two characteristic forms. In the first form coloured people are seen as merely one kind of stranger and what they are subjected to as one variety of the xenophobia for which the British (it is alleged) are well known. In the second form of argument the quarrels between white and coloured are written off as conflict over scarce commodities: housing, jobs and women. On this view the removal of the shortages will abolish the rivalry.

I think that the second argument can be easily disposed of. If coloured people are there to be competed with for housing, jobs and women, then *ipso facto* they are defined as a special category; and if they are defined as a special category then there is in some sense a colour problem. In order to accuse people of taking away what you consider to be yours you must have some idea that they are outsiders who lack your rights.

The first argument is of course more weighty. Minorities of several kinds have suffered British disdain in modern times. If Irish Catholics in Liverpool, Welshmen in Bristol and Jews in East London have been looked upon as undesirable intruders, then why should we not regard coloured immigrants as just another target for native intolerance? In the nature of things, immigrants tend to be poor, uneducated and unfamiliar with the local way of life; what is now being said to the detriment of coloured people can be matched point for point in what has been alleged of other minorities in Britain. If coloured people are accused of being dirty and of crowding into insanitary dwellings, so were the Jews from Eastern Europe. If coloured people are feckless and unreliable, so are the Irish. If they are pimps, so are the Maltese. And so on.

I do not accept this view of the matter as complete, because it seems to me to leave out of account a 'racial' factor which often enters into the social perception of coloured people and which is either absent from or present only in a minor degree in the evaluation of other minorities. By a 'racial' factor I mean an element which ascribes the social and cultural differences of coloured people to their biological endowment. Coloured people are not just strangers with strikingly different physical features; they are often thought to be what they are because of the handicaps imposed on them by their 'race'. To many in this country coloured people, and especially Negroes, are inferior stock. We should keep them away from our daughters. We must recognize that 'breeding with that which is different is more likely to lead to trouble than to happiness'. These last few words are the modest expression of a racial prejudice which runs through the recent pamphlet on West Indian immigration put out by the Eugenics Society. More forthright expressions of the genetic hazards offered by the presence in our midst of coloured people are to be heard around us in our daily lives.

Why coloured people should be looked down upon as genetic risks is a question which, it seems, cannot be answered on the basis of biological evidence. The answer must surely lie in the history of the political superiority of the whites and the various ideologies which have been conjured up to make it rest on a religious or biological justification. The inferiority of Negroes in particular is certainly much more the product of Europe's domination of Africa than it is of any provable shortcomings in negroid heredity. When in Britain today we speak with a racist voice we are using an idiom formed in a less questioned phase of white expansion.

I have tried so far to show that the ingredients of a colour problem exist in this country at the present. There is a category of the population which is defined as coloured, and this category often has ascribed to it an inferiority which is in a significant degree attributed to 'racial' endowment. But having made this point, which I think is a necessary one, I must go on to stress the fluidity of the British racial situation.

The situation is fluid in two different senses. In the first place, many of the concentrations of coloured people in Britain are of recent standing and there is a tendency for coloured people to move into areas where they were not known before. The physical limits of coloured settlement have presumably not yet been reached. In

the second place, despite the underlying prejudice against coloured people as a whole, there is clearly a great uncertainty in the minds of the natives about the status and proper social roles of the coloured and a matching uncertainty among the coloured about their position and the social limits within which they may move. The very lack of a colour bar in this country to dictate what may and what may not be done has been shown to be a source of anxiety to coloured people, some of whom have been heard to say that they would have preferred a more cut and dried situation even at the expense of a codified system of exclusions.

The fluidity of the situation springs in part from the gap between prejudice and discrimination, or, to put the matter another way, from the failure of ideas to be realized in behaviour. Prejudicial attitudes towards coloured people are widespread, but it does not follow that coloured people are discriminated against to a corresponding degree. In our major public institutional life, in the courts, government offices, churches and so on, coloured people usually share the cool impartiality of a society which takes its democracy for granted. But in private life and in areas of public life where the major institutional controls are weak, individuals may allow their prejudices to issue in acts of discrimination. The doors of many houses are closed to coloured people; lodging houses, hotels, cafés and dance halls sometimes show their unwillingness to receive a coloured guest. Observers have commented on the unevenness of these private and semi-public exclusions and on the wavering uncertainty of people in a position to admit or bar a coloured person. The uncertainty seems to spring from a lack of assurance about what other whites expect and want. The landlady who turns coloured people away solely on the grounds that her tenants would object to a coloured neighbour may perhaps be telling the literal truth as she sees it; and she may be making a wrong calculation of the reactions of her tenants. It is for reasons such as this that some people argue—I think correctly—that a legislative stand against discrimination would be of value. If opinion is fluid and can be swayed by determined leadership one way or the other, towards fascism or liberalism, then let Parliament say that discrimination in public life is illegal. In making the decisions of which the landlady's is the type-case we shall then be less inclined to consult an opinion which is in any case rather nebulous.

I have referred to coloured people in Britain as a category and not as a group. The reason for the choice of words is a simple sociological



one: the people we choose to call coloured do not act together as a group. It would be surprising if they did. West Indians, West Africans, Indians, Pakistanis, Chinese and the rest of the so-called coloured people of this country differ too widely in their backgrounds and aspirations to make it likely that they would spontaneously come together for concerted action. But surely we run the danger of turning a category into a group by every act of white defiance. If we continue to oppose coloured people on the grounds that they are coloured, and if we again engage in acts of violence which, whatever the pundits may say about their real origins, are taken as straightforward attacks on coloured people, then we shall surely find that, having in the first place conjured a coloured category out of nowhere, we have then turned it into a group with a vengeance.

Meanwhile the only coloured groups are the local settlements and communities in which coloured people have developed significant ties of relationship among themselves. These communities can never, for obvious reasons, dwell in isolation from the whites who surround them, but the extent to which coloured communities seek relative isolation, or are content with the relative isolation imposed upon them, is highly variable. There is clearly a great difference between coloured people who come to Britain looking for a home from home and those who are content with just making a living. The picture which emerges from the various studies made in this country is that the West Indians above all arrive with expectations of acceptance which are quickly dashed. The extent of these expectations has perhaps been exaggerated by some writers, but it seems fairly clear that, as English-speaking Christians, West Indians are disappointed in their hopes of finding a place for themselves in the society of Britain. To a degree the same disenchantment awaits some of the immigrants from West Africa. In contrast, other kinds of coloured people make fewer demands on society in general and correspondingly more demands on their own internal social organization. One notes, for example, how Pakistanis and African Muslims organize themselves tightly in relation to their religion and, seeking little from society at large, maintain a relatively closed community life. The white women who marry into such groups find themselves absorbed into exotic corners of Britain where cultural and religious distinctiveness goes hand in hand with comparatively self-contained systems of social relationships.

The coloured people in any one area may be heterogeneous, the

various 'national', tribal, linguistic, or regional elements organizing themselves in separate associations. British society forces concentration of this kind, not because coloured people are required to live in ghettos but because they are driven by discrimination into areas where they can get poor and sub-standard housing and can find the fellowship which is difficult to come by in white society. That there are no real ghettos is a very important feature of coloured settlement in this country, for the concentrations are never complete, white and coloured living as neighbours, often in the same house. But by force of circumstances coloured people tend often to settle among what in other countries would perhaps be called 'poor whites', with the consequence that the raffish and ruffianly air which surrounds many coloured immigrants may in fact be a direct product of the white environment into which they are thrust.

The general location of coloured people is determined by the opportunities for making a living. Before the influx of recent years the port areas were the coloured centres *par excellence* in Britain. Now that they are no longer predominantly seafarers, coloured people have spread to places where their skill, or want of it, allows them to find work. So great a proportion of them must lack the qualifications for other than unskilled and semi-skilled jobs that one may not be surprised to see few coloured people in posts requiring a considerable measure of education and training; but then one begins to wonder about the fate of the small number of intellectuals and the likely lot of the next generation. Will it be possible for coloured people to climb the social ladder in any considerable numbers, or will colour keep them out of the technical, managerial, executive and professional positions for which they contrive to qualify? As far as the present position is concerned, there can be little doubt that only a small minority of coloured people are equipped to take jobs which afford high status in our society. But even this initial handicap may be strengthened by the general uncritical assumption, shared, it would appear, by the clerks in some Employment Exchanges, that coloured workers are 'labourers'. Some coloured people get white-collar jobs, and we may assume that more will do so in the future. Yet one may well be left with the impression that the progress of the coloured people as a whole will be impeded not only by the educational and cultural disadvantages which inhere in their position at the bottom of the economic class ladder (and which they share with white citizens of a similar standing), but also by a reluctance to treat

coloured candidates on an equal footing with white when posts involving supervision, control and management are in question. In addition, of course, it hardly needs stressing that, as a new element in the labour force, coloured workers are likely to feel the effects of a recession before others.

These disabilities tend to confine coloured people to restricted areas of economic life. Housing difficulties provide another kind of constraint. If we now add to the picture a number of other social inhibitions which impede the free movement of coloured people in British society, we have the makings of a situation in which coloured people are to become a permanent identifiable minority. The more they come to feel the pressure of the larger society upon them, the more they are likely to make intricate the web of relationships which tie them together. So far the organization of coloured people in the country as a whole may appear rudimentary, but Afro-West Indian solidarity at least may prove a growing symptom of the creation of a coloured minority.

It does not follow of itself that minority status is a bad thing. Life in a minority may be very comfortable. It may bring protection and privileges. Indeed, the attempts by white people of goodwill to help the coloured by organizing special committees and services are part of the machinery for creating a dependent minority which can look forward to a stream of benefits from society at large. In the most recent sociological monograph to appear on coloured people in Britain, Dr. Collins lays stress on what he calls 'the overriding importance of sponsorship'. He points out that among the communities he has studied up and down the country the Tyneside Negroes and the Lancashire Chinese both had the 'most amicable relationship with British society' and showed 'strong evidence of sponsorship'. The voluntary association organized by the Tyneside Negroes was well supported, financially and otherwise, by prominent local citizens, some of whom served in its council. The municipal authorities 'took special interest in their housing problem before the housing scheme became a responsibility of the state'. The British Council, the Y.M.C.A. and the Y.W.C.A. helped to organize social and sports activities. As for the Chinese, they 'found a sponsor in the shipping company which offered them a large measure of economic security'. (Clearly, some 'sponsoring' activities are directed towards dispersing individuals in British society rather than to supporting groups. I am concerned here with the latter kind of help.)

Now, if the implication is that the most painless way of integrating coloured people into British society is to set them up as groups which are in some manner specially protected, then we are in fact facing a dilemma if at the same time we believe that there is no room in British society for organized ethnic groups which somehow stand apart from the main stream of our institutional life. Common sense tells us that it is better to do all we can to make things as easy as possible for people in a difficult position—by helping them to get jobs, to find somewhere to live, to enjoy the amenities of a civilized existence and to organize themselves in order to help one another. On the other hand, by acts of group 'sponsorship' we create or confirm the existence of a minority. It is perhaps the price we must pay for our prejudices.

I have touched on jobs and housing; women are the third point on what has become the conventional budget of sore spots in British race relations. As I have already suggested, if we resent white women associating with coloured men it must be because we have a prior belief that these men are outsiders lacking our rights and privileges. On the other hand, it is clear that the association of coloured men and white women is fairly common and that it often takes the form of stable domesticity. If we hold coloured people behind a demarcated line we shall probably find that intermarriage will both continue and raise more problems. This is the paradox of intermarriage between 'racial' groups when they are of unequal status. We cannot say that a quiet and steady dilution by racial mixture will solve the colour problem, because the relative status of parental groups will ensure that the products of racial mixture will either be given an intermediate status or be relegated to the status of the socially inferior parent. The so-called Anglo-Coloureds do not appear to be exempt from prejudice and discrimination in proportion to their racial heredity. If all the not-completely-whites are crowded into the social position which prejudice has prepared for them, the educational and economic dice will be loaded against them in their attempts to rise in the social scale; while the few who succeed in becoming prosperous will attract hostility on that very ground—we have already heard sour comments about darkies in big motor cars—and be constrained to limit their intimate social relations to other non-whites and the few whites who move over by marriage.

In the light of this analysis it is possible to argue that the troubles in 1958 confirmed the existence of a coloured minority and a colour

problem in Britain. But there is also a more hopeful way of looking at the riots and their consequences. We may read into them a kind of negative demonstration of norms. In order that we may preserve the norms of a free society we may have required that they be challenged and then reaffirmed. The reaction of the press and the toughness of the magistrates may mean that the trouble-makers have in fact helped to strengthen our attachment to those values which, whatever the existing prejudices, affirm the right of individuals to choose to live and work with the maximum of freedom.

## 9. Darwin and Durham<sup>1</sup>

SOME PROBLEMS OF RACE AND POLITICS IN THE MULTI-RACIAL  
SOCIETIES OF THE COMMONWEALTH AND COLONIAL EMPIRE

by Kenneth Kirkwood

### I

IT is a heavy responsibility before mankind for a nation to produce men who change the course of human thought.' These words, with which Sir Gavin de Beer began his recent lecture on Charles Darwin,<sup>2</sup> provide the theme for my paper. My approach, however, will be social and political rather than biological or social-biological and my interpretation of national responsibility will be related mainly to the problems of race and politics in the evolving multi-racial Commonwealth: in the self-governing or full member nations to which the 'Durham formula' has been fully applied, as well as in the territories which comprise the 'emergent Commonwealth'. Lord Durham's writings, like Darwin's, are being naturally and rightly subjected to increasing attention and detailed criticism but few scholars would disagree seriously with the late Sir Reginald Coupland's assessment<sup>3</sup> of the importance of Durham's *Report on the Affairs of British North America* in the development of the theory of British colonial government. War, caused in part at least by the adoption of corrupt principles of 'Darwinism' or 'Social Darwinism', prevented the full-scale centennial commemoration of the publication of Durham's Report that we give this year to that of *The Origin of Species*, but we have in the current or ensuing decades many centenaries of colonial responsible government to remind us of a great radical and original political thinker, the influence of whose thought on human affairs has been at many points so closely intertwined with that of the great biologist and physical anthropologist.

Of Charles Darwin each contributor to a symposium such as this will have his own particular views. For my part, being now out of

<sup>1</sup> This paper is a summarized version of the original address to the Symposium.

<sup>2</sup> De Beer, Sir Gavin, *Charles Darwin, Lecture on a Master Mind*. Henriette Hertz Trust of the British Academy (O.U.P., 1958).

<sup>3</sup> Coupland, R., *The Durham Report* (Oxford, 1945). Preface and Introduction.

touch with the laboratory and having learned some caution through having cut my anthropological eye-teeth on Piltdown Man, I should like simply to pay tribute to Darwin's patient and prolonged field-work and meticulous observation, his honesty and care in presenting findings and his caution in generalization, and to stress the value of these qualities and methods in the field of race relations, as of the social studies generally. Too frequently ambitious or politically inspired assertion is allowed to masquerade as established fact in a field where strong emotions are easily aroused. Adverse criticism, however, may not justly be applied to those United Kingdom anthropologists who, through the years, notably in the 1930s, have done so much to refute in plain and sober language the extravagances of racist theories and to repeat the findings of self-critical science on the descent and relationships of man. It is appropriate for the purposes of this symposium that we should bear in mind the work of men like A. C. Haddon, Alexander Carr-Saunders, Julian Huxley and also younger investigators like Dr. Kenneth Little and his associates whose important post-war researches on contemporary problems of race and colour in Britain have been reported and discussed at this Royal Anthropological Institute. It is my conviction that if greater heed had been paid by policy-makers and responsible administrators to the research papers, and the implicit and explicit warnings of men like these, we might have been spared some of the troubles of Nottingham and Notting Hill. It is also my belief that the more effective mobilization of the knowledge and experience of independent scholars and scientists in the service of the Commonwealth is essential if we are to make a success of the important multi-racial international association which has Britain as its centre.

## II

The most casual survey of the contemporary Commonwealth allows no complacency with regard to race or ethnic relations in either the external (inter-state) or internal (intra-state) sphere. There are substantial differences in outlook between the members of the so-called 'Anglo-Saxon Commonwealth', the old association of 'Great Britain and the Dominions', and the newly emerged Asian and African members who now equal and will shortly outnumber the former group. The resentment at the attitudes of the 'Anglo-Saxon' members is well exemplified in the speech of a Prime Minister

of Pakistan,<sup>4</sup> and hostility to 'white racism' has also been a characteristic of Pan-Africanist conferences since Ghana attained full membership of the Commonwealth. Our concern today is however primarily with internal rather than external relationships. Here it is evident that while the United Kingdom might be the member nation least affected by racial tension, whereas the Union of South Africa is most deeply divided on grounds of race, language and culture, there is no country within the Commonwealth which is wholly free from ethnic problems of a more or less serious kind. Malaya, Canada, Ceylon and Ghana, for example, are afflicted by communal divisions and even New Zealand, with its general reputation of good if not idyllic Maori-Pakeha relations, has recently produced reports of discrimination against Maori professional men, while forecasts have been made by New Zealand demographers and other students of possible heightened difficulty within the next two decades, as Maori urbanization, intermingling and competition increase, if matters are allowed to drift. In the emergent Commonwealth Nigeria, which attains full member status in 1960, Fiji, Kenya, Uganda, Sierra Leone and British Guiana are only some of the colonies or protectorates which experience sharp divisions between their diverse peoples and which offer a direct challenge to the United Kingdom to help them to achieve a greater degree of national unity.

Some of the ethnic diversity within the overseas Commonwealth antedates the Pax Britannica, as in Zanzibar and along the east coast of Africa where Arab and African, and Indian, have co-existed since more ancient times, but, for the most part, the creation of multi-racial societies has followed the coming of British administration. The encouragement of European and other 'non-indigenous' settlement, the transport of slaves and the assisted passage of indentured labourers have been the principal procedures whereby the populations within the various overseas territories have been made so ethnically heterogeneous. In Canada and Australia, large numbers of free European immigrants came to predominate over the indigenous people; in the Caribbean African slaves and indentured East Indians were imported, in part to fill a void created by earlier extermination; to Africa, Indians and Chinese were brought in substantial numbers

<sup>4</sup> See Inaugural Address of Mr. Mohammed Ali at the unofficial Commonwealth Relations Conference, Lahore, 1954, in Mansergh, N., *The Multi-racial Commonwealth* (R.I.I.A., London), 1955.



to provide the labour for essential economic development. The South African Indian people come to mind as a community who in 1960 celebrate the centenary of their immigration to Natal at the instrumentality of the Imperial Government, the Government of India and the Colonial Government of Natal. Repatriation has been rare, though the Chinese of the Witwatersrand (1904-11), whose condition played so notable a part in the United Kingdom general election of 1906, were returned to their homeland.

### III

When the Commonwealth is viewed in the above manner, it is plain that some degree of national responsibility has been incurred by Britain during the past few centuries. In the case of many countries it is not suggested that the responsibility today can be considered to be very direct, especially where reasonably representative local successor governments have willingly taken over from the United Kingdom. It is, however, very relevant to our theme to underline the fact that as the 'Durham formula' has approached fulfilment, that is, as self-government has become a closer reality, so have the divergent ethnic groups overseas become increasingly conscious of their distinctiveness and of the need to safeguard their position. Tensions have mounted as different tribes, races, religious communities, language groups and the like have become more sharply aware of the possibility of their being governed not by a remote 'external arbiter', such as the United Kingdom Government, but rather by one or more of their nearer local neighbours. This has been and remains a universal difficulty within the Commonwealth, and it is operative between all ethnic groups, not simply between 'white', 'European' or 'Anglo-Saxon' on the one hand and Asian, African, Amerindian, Polynesian and the like—the so-called 'non-white'—on the other. Thus in Malaya there remain serious unresolved problems between Malaysians, Chinese and Indians; in Uganda between Africans and Asians, and between African tribes such as the Baganda and the non-Baganda.

It is nevertheless in the areas where white settlement has taken place and where European immigrants have come to exercise complete or substantial control that the problems of race relations are perhaps most challenging. Where the whites are now in a comfortable majority, as in Canada and Australia, the difficulties are not so great, though there is periodic criticism of restrictive or selective

immigration policy, as there is of policy towards the minorities of surviving Amerindians or aboriginals. It is in the areas where white settled minorities have been granted complete or substantial power and privilege that the gravest tensions have occurred. And, while territories like Fiji face an undoubtedly serious set of problems, in no parts of the Commonwealth have racial divisions become more acute or dangerous than in the multi-racial societies of South, Central and East Africa—societies which may be seen as microcosms of the multi-racial Commonwealth.

To understand the intractable nature of the problems of the multi-racial societies of British East, Central and South Africa, it is, I believe, essential to keep in mind the historical depth of, and the weight of Imperial precedent behind, the process of transferring power from Westminster and Whitehall to the white minorities. It was in 1872 that Cape Colony received its responsible government constitution, some twenty years after a liberal form of representative government had been introduced. Sir Philip Woodhouse, Governor and High Commissioner, 1862–70, had questioned the wisdom of granting power to a white minority but, his views and the recent 'Jamaica reform' notwithstanding, the leading British colony in Africa was soon placed firmly on the path of constitutional development which had been followed already by several of the separate Canadian and Australian colonies, and by New Zealand. Natal, granted a measure of representative government in 1856, might have been expected by virtue of its isolated frontier position in proximity to Zululand, and its tiny white population, to have had responsible government withheld, but in 1893 it, too, attained that status and its few whites were entrusted with the administration not only of themselves but of the Indians and Africans. In 1897 the responsibility of governing turbulent Zululand was also placed upon them.

With these powerful precedents, and especially in view of the Peace Treaty of Vereeniging, 1902, it is perhaps not surprising that the recently conquered Transvaal, in 1906, and the Orange Free State, in 1907, should have been granted full responsible government by the Imperial authorities. Nor is it surprising that the anti-war and pro-Boer Campbell-Bannerman administration should as a 'great act of faith' have transferred power to the whites of a united South Africa under a constitution, the South Africa Act, 1909, which contained explicit colour bars, proposed by Natal and supported by the Transvaal and the Orange Free State. Few indeed were the House

of Commons critics of these discriminatory provisions: the protests of W. P. Schreiner and others from South Africa were unavailing.

The strength of 'Imperial inertia' is further, and particularly well, illustrated by the granting to Southern Rhodesia of responsible government in 1923. Purely static comparisons of the white population, that is between Southern Rhodesia in 1923 and Natal thirty years before, were found convincing by the precedent-minded official investigators. Elsewhere in British Africa in the inter-war period there were no full-scale transfers of power, but the few whites then settled in Kenya and Northern Rhodesia were granted a very substantial voice in policy.

The culmination of Imperial inertia, however, might be seen to have occurred in 1953, in the post-war age of 'partnership', when the Federation of Rhodesia and Nyasaland was brought into being by the United Kingdom. The two 'Colonial Office' territories, Northern Rhodesia and Nyasaland, were deliberately joined to self-governing Southern Rhodesia under a constitution in which locally resident whites, responsible to predominantly white electorates, were granted full control of the federal executive and overwhelming control of the federal legislature. Virtually unanimous African representations against federation, through official institutions such as the African Representative Council of Northern Rhodesia and the African Protectorate Council of Nyasaland, and through unofficial deputations, were ignored. The protests of local white liberal leaders were discounted, opposition in the United Kingdom was firmly overruled.

I have indicated the anatomy of the process that I have labelled 'Imperial inertia' and have pointed to the power of static comparison and precedent in the formulation of Imperial policy. The detached and detailed scientific analysis of the behaviour over the years of the white minorities in each of the territories to which reference has been made is important, but what seems extraordinary is the recurrent disregard by responsible authorities not only of scholarly studies but of the plain evidence of the results of unwise legislative and administrative action on the part of the white minorities, action harmful to race relations, not least to the whites themselves.

This dangerous lack of a sense of 'political dynamics', of an awareness of the need to study trends in policy and practice over time, can be illustrated from almost every territory in the Commonwealth but the Natal-Southern Rhodesia example to which I have referred

already is particularly illuminating. The members of the Buxton Constitutional Committee, who in the early 1920s considered the claim of Southern Rhodesia's whites to be allowed to advance to responsible government, appear to have given little thought to the legislative and administrative action under responsible government in Natal in the 1890s and early 1900s, which caused serious Asian discontent and which led to grave Indian disturbances, involving the young Gandhi, and to the African measures which led to the bloody and destructive Zulu rebellion of 1906. The disfranchisement of the Asians in 1894, confirmed in 1896, immediately after Natal was granted self-government, and the imposition of numerous discriminatory statutes on the Africans (culminating in the notorious Poll Tax in 1905) failed apparently to impress the Imperial investigators in the neighbouring British territory of Southern Rhodesia, which possessed numerous direct links with Natal. Nor is there evidence of any serious attempt at a critical evaluation of events, trends or tendencies within Southern Rhodesia itself during the first three decades of British South African Company administration. The warnings of locally based officers such as the Resident Commissioners and of missionaries in everyday contact with Africans were scarcely heeded.

But while one might possibly choose to regard the years before the mid-1920s as being still 'experimental' from an Imperial policy point of view it is more difficult to understand the later failures to take adequate account of trends in South Africa, the Rhodesias and Kenya. The evidence of the Statute Book and of official commentaries alone provided numerous warnings but there were, in addition, the scholarly analyses of individuals like Dr. J. H. Oldham, Professor W. M. MacMillan, Miss Margery Perham, Dr. Lucy Mair, Lord Hailey and Professor Sir Keith Hancock. Each study in its own manner provided documentation and interpretation of a high standard in the sphere of what might be termed 'native policy' in British Africa: Dr. Lucy Mair's important work, *Native Policies in Africa*, with its informative section on 'The White Men's Countries', was published in 1935. In a volume of Sir Keith Hancock's *Survey*<sup>5</sup> of 1942 there was also a penetrating analysis of the 'settlers' frontier' in British Africa, a brilliant, concise account of the trends in South, Central and East Africa. Clearly there is a substantial period of 'lag'

<sup>5</sup> Hancock, W. K., *Survey of British Commonwealth Affairs: Volume II, Problems of Economic Policy 1918-1939, Part 2* (Oxford University Press), 1942, pp. 1-153.

or 'inertia' before the marshalled facts and new ideas of scholars have their effect on colonial or overseas policy.

It must be emphasized that it has been no part of my purpose to add to the adverse moral judgements of the white minorities of British Africa to whom political power and administrative responsibility have been transferred recurrently by the Imperial Government. There is in fact much to support the view that many of their administrative achievements are praiseworthy and that few other peoples would have managed public affairs so well. Yet the evidence of harmful discrimination in policy and practice is too substantial to be overlooked and it would seem plain that an undue burden has been imposed—a burden calculated to evoke white fear and consequent African resentment and aggression and to give rise frequently to situations of tension and violence. I cannot enumerate the instances of discrimination, but they are to be found in the sphere of political, economic and social policy, embracing matters such as the franchise, land ownership in town and country, education and personal relations.

In addition to the evidence usually assembled by the student of policy in respect of the multi-racial societies of Africa and other classical areas of racial tension, valuable comparative data is becoming available from other quarters and disciplines. Of particular relevance in connexion with the behaviour of Africa's white minorities is the evidence of discrimination, and the difficulties of reducing it, in localities such as Notting Hill and Nottingham in the United Kingdom, or in particular localities in the northern states of the United States of America. There is fruitful dispute and discussion between colleagues like Michael Banton and Anthony Richmond over the use of terms such as 'prejudice' and 'antipathy', and the incidence of either or both among the white majority of Britain, but there is and can be no disputing the fact that significant racial discrimination does occur in this country and that there is prejudice and widespread antipathy as well as great ignorance on questions of race and culture, and related Commonwealth and colonial matters, among most citizens.<sup>6</sup>

These facts may well be compared with the findings of investigators in Africa who have explored the incidence of racial tolerance and intolerance, and knowledge of the African, Coloured, Indian and Malay peoples, among samples of the white populations. One

<sup>6</sup> Cf. Evens, G. K., *Public Opinion on Colonial Affairs*, N.S. 119, 1948, a survey made for the Colonial Office.

thinks in particular of the outstanding pioneer psychological studies of Professor I. D. MacCrone of the University of the Witwatersrand.<sup>7</sup> *A priori* it would seem likely that there would be a greater incidence of intolerance in a minority feeling itself to be threatened, but there is evidence that some members of the white minority, by virtue of their intensive, or searing, experience, are more convinced 'non-racialists' than fellow whites in, say, Britain or America. And between the very intolerant (or authoritarian) and the very tolerant in Africa there are undeniably many whites whose views and actions remain open to influence and leadership in the direction of greater or lesser discrimination. I cannot enlarge here on these considerations or draw in detail upon personal researches in Africa, Britain and the U.S.A., but the main purpose of this section is served if there is greater recognition of both the need to consider with detachment the difficulties as well as the policy deficiencies of the white minorities in British Africa, an important ethnic group in the multi-racial Commonwealth. Greater awareness is required of the fact that these minorities are no more 'undifferentiated masses' than are any other human communities, and also recognition of the fact that they represent cross-sections of their parent communities transplanted to different social and physical environments. In terms of the continuing responsibility of the United Kingdom to the overseas members and dependencies of the Commonwealth, especially to those in which there has been an uncritical or overhasty implementation of the 'Durham formula', I shall now seek to suggest ways and means whereby the white minorities, and other dominant ethnic groups, especially perhaps the less race-conscious or intolerant elements, might be assisted by Britain to achieve, in concert with the more tolerant members of other races, the declared goal of inter-racial partnership.

#### IV

A first step towards the end of the United Kingdom discharging more constructively its responsibilities in respect of these multi-racial societies which are still on the road to full self-government would seem to be the more effective mobilization and utilization of available knowledge and experience in the service of government policy. There can be no claim whatever to originality in making the

<sup>7</sup> Cf. MacCrone, I. D., *Race Attitudes in South Africa, Historical, Experimental and Psychological Studies* (Witwatersrand Press), 1937—reprinted by Oxford University Press, 1957.

general proposal which follows, but, since the urgent need for a new advisory institution within the structure of government of the United Kingdom struck me with direct force at a critical stage of my research on contemporary British policy in Africa, and since no institution of the kind envisaged has in fact resulted from past suggestions, it seems legitimate to take the opportunity of this symposium to discuss with colleagues the possible advantages and disadvantages of a new 'Council' which would seek to draw upon their several sciences and disciplines. We cannot here recall in detail the suggestions of authorities like Mary Kingsley, Lord Lugard, Dr. J. H. Oldham and General J. C. Smuts, but Smuts' views on the need for the application of science to government in a scientific age, Oldham's stress on the need for an idea, if it is to be effective, to be embodied in an institution, and Lugard's and Miss Kingsley's practical proposals for an Africa Council (of rather different composition from the one I envisage) all bear directly on the proposal. More recently Professor W. M. MacMillan has lent his support to the general notion of a body of this sort, while Professor Meyer Fortes of Cambridge has emphasized the need for the relevant findings of the various sciences, notably the disciplines of the social studies, to be absorbed, co-ordinated and applied more rapidly in the service of man. Weighty opposition has been raised in the past by Lord Hailey. There are other ex-administrators with Indian experience who persist in viewing any proposed new institution simply in the light of the, to them, unpopular Council of India which functioned with varying degrees of success and in very different circumstances from 1858 to 1935. But the greatest opposition has come from those, notably Ministers, representatives and officials, who believe that the existing institutions—Cabinet, Parliament, Commonwealth Relations Office, Colonial Office, Oversea Service and the like—are fully adequate to their tasks.

The apparent need for an independent, expert Council to advise the Government of the day (a general policy body as contrasted with the numerous specialist technical advisory committees) was driven home most plainly by the making of the constitution of what is now the Federation of Rhodesia and Nyasaland. Most disquieting was the effect upon the provisions of the constitution, and the method and timing of its implementation, brought about by the change of government in the United Kingdom as a result of the general election of 1951. The difference between the Conservative and Labour Adminis-

tration was reminiscent of the difference between the Liberals and Conservatives over South Africa before 1910. Such breaks in the continuity of policy, or Imperial inconsistency, due to party political influences, have had the most serious effects on ethnic relations in overseas territories. Lack of consistency in the method of inquiry has also been unfortunate. Thus, over the Rhodesias and Nyasaland, the instrument finally employed was a closed conference of officials, after two independent *ad hoc* Commissions, which invited public evidence, had in previous decades considered and rejected various proposals for closer association. Both Commissions had been impressed by the strength of African opinion. The striking diversity of facts and views on important questions to which an ignorant public with no first-hand knowledge of Central Africa was subjected by means of press and parliamentary reports, broadcasting and television was also disquieting. Assertion and counter-assertion bewildered even the genuinely concerned citizen who took the trouble to study newspapers and journals of different viewpoints, and to listen to the claims and counter-claims of those who found it expedient to present themselves as experts on Central Africa. For example, great play was made upon the Africans' alleged lack of comprehension of the meaning of 'federation', because their various Bantu languages lacked a precise word to connote or denote this form of government.

Much of the political argument, and the resultant dangerous confusion, might have been avoided by the referring of controversial matters, such as the above linguistic question, to a panel, board or council of independent and qualified advisers who by virtue of their office and status were assured of access to all relevant information, including official papers, and who, by virtue of their oath of office and responsibility to the State, would be most likely to supply reliable facts and soundly-based views. In particular, it is suggested that the compilation by such men and women of reports, addressed to the responsible Ministers, to be tabled in Parliament and made available to the public, could do much to reduce the harmful effects of party prejudice and ignorance and to achieve greater consistency in policy. The assurance of membership of the Council for a reasonable period of time would promote confidence and continuity, while the use of modern facilities, air transport and the like (facilities never available to comparable bodies in Britain or elsewhere in the past), could conduce greatly to the more efficient and effective discharge by Councillors of their duties. The Council would not be perfect nor the



Councillors omniscient; they might, however, be more successful in seeking to define an acceptable meaning of 'partnership' and in suggesting possible methods of achieving it than have those who have not taken serious account of the views of independent-minded men of knowledge and experience in administration, commerce, industry, trade unionism, missionary endeavour, education and academic investigation.

Two things remain to be said briefly under this head. First, a purely voluntary institution cannot suffice. In his *Twentieth Century Empire*,<sup>8</sup> in which he proposed reorganization of the agencies for the conduct of Commonwealth and colonial affairs, Mr. H. V. Hodson rightly acknowledged the relative ineffectualness of the existing unofficial institutions operating in the United Kingdom. There are also far too many such overlapping institutions, in competition and conflict one with the other for resources, funds, sale of journals and the like. Competition in the voluntary sphere can be healthy, but an effective Council concerned with vital matters of general policy (systems of government, the introduction of a constitution, forms of consultation, principles in regard to franchise, representation, land and labour, education) must be lifted above the level of voluntary institutions uncertain of assured resources and subject to financial influences, and it must also be placed in full public scrutiny. The second point is simply that a Council of this kind, though its prime and initial responsibility would be to the countries of the 'emergent Commonwealth' for which the United Kingdom has a direct political responsibility, could also serve, by co-operating at their request and with relevant agencies within them, the full member nations of the Commonwealth. By such means might one hope that the available findings of science and scholarship would be employed more effectively in the interests of the wider association.

## V

In addition to the words of Sir Gavin de Beer, I have had in mind throughout the preparation of this paper the words of Dr. Julian Huxley who, in the conclusion to *Evolution and Ethics*,<sup>9</sup> urged 'some sort of political unification of the entire species, which will render group enmity much more difficult', this as a condition for the next major stage in the evolution of social ethics. To me the strengthening

<sup>8</sup> Hodson, H. V., *Twentieth Century Empire* (Faber and Faber, 1948).

<sup>9</sup> Huxley, T. H. and Julian, *Evolution and Ethics 1893-1943*. (The Romanes Lectures of 1893 and 1943 with additional papers.)

of the bonds of Commonwealth, bound by the historical and other ties to which Professor Nicholas Mansergh has referred in his Cambridge inaugural lecture, could contribute substantially to the end stated by Dr. Huxley. While being hopeful of eventual success in achieving 'partnership', I have nevertheless thought it essential to be frank about the nature and scope of the racial problems between and within countries of the Commonwealth. Thereafter, in recognition of the immense nature of the challenge and the wide range of topics, and also in an endeavour to avoid repetition of material contained in specific territorial and continental papers, I chose to focus on a few limited aspects of a subject to which inadequate attention would appear to have been given by responsible policy-makers in the nearer as well as the remoter past. In particular I have tried to emphasize, as I see it, the challenge to the United Kingdom to do everything possible to govern and to unite the multi-racial or plural societies of the emergent Commonwealth before power is transferred and have suggested for discussion one possible means whereby the quality of government policy might be improved. Non-self-governing territories in British East and Central Africa were selected for special attention and the difficult problems of reconciling or adjusting the interests of the dominant white minorities to those of the African majorities and other ethnic groups were indicated. More time than is usually thought to be available might be required, before power is transferred from Britain, if the goal of greater national unity is to be attained, but it is believed that the evidence of disunity and its various evils in Commonwealth countries to which power was transferred hastily or prematurely would offer more than sufficient justification if the United Kingdom chose to postpone self-government until the prospects of sharp conflict or chaos were substantially reduced. A recent re-examination of policy in selected fields of race relations in British Africa served to confirm for me the undoubted value of Colonial Office participation in government until various critical racial barriers have been removed or lowered and new non-racial practices have been firmly established in their stead. But the goal of independent self-government for each country, and its right to free association with the ten full member nations of the existing multi-racial Commonwealth, must continue at all times to be actively pursued and preserved for, though it was Darwin who changed the course of human thought on man and other species, it was Durham's political genius that transformed and made more hopeful the evolution of empire.

## IO. Race, Tribalism and Nationalism in Africa

*by Lucy P. Mair*

THE political problems of Africa are commonly discussed in terms of relations between races. The British dependencies in particular are popularly conceived as falling into two classes—the homogeneous and the multi-racial. Those of the west are described as homogeneous; in this context the word means that there is no non-African population permanently settled there, claiming a stake in the country and a voice in political decisions. In Eastern, Central and Southern Africa, all the larger territories have settled populations of relatively recent immigrants, whose origins are in Europe or Asia. In these territories there is marked political opposition between Africans and non-Africans, and also between the immigrant populations of different origin, and it is here that plans for political advance have met with the most serious difficulties. In West Africa, British governments have been able to negotiate with leaders claiming to speak for whole territories, or at least large geographical regions. But in East Africa the people who put forward claims represent sections defined by their ethnic origin, and usually the claims of each section are incompatible with those of the others. Each of them is looking ahead to the position that it hopes to hold in a future independent state, and seeking to secure that position in advance.

In West Africa, sectional claims have been put forward, but this has not seriously impeded the process of transition towards self-government. There have been some minor difficulties. For example, Sierra Leone has a largely westernized population in Freetown and the neighbourhood, descended from the freed slaves who were settled there in the eighteenth century; they are known as the Creoles. The Creoles resisted the extension of the vote to the peoples of the interior, which had the effect of making them a minority; they used just the kind of arguments which might be used by Sir Roy Welensky. However, in general the peoples of the West African territories have seemed to be united as they passed through the preliminary

stages towards self-government. But when self-government is round the corner, some of them do begin to wonder who is going to do the governing, and whether power will be in the hands of a section of the total population whom they regard as alien to themselves. This kind of opposition can appear at the lowest level of the political structure, and between quite small groups. In local government, it is creating a rather paradoxical situation both in Ghana and Nigeria. Local government experts keep telling the public how important it is to create large local authorities, with revenues to pay for services of a high standard. But on the ground a tiny village will refuse to be joined in the same council with a larger neighbour, because it regards the people of the neighbouring village as strangers who cannot be trusted to take its interests into account.

This kind of local particularism is sometimes called 'tribalism'. Africans think this word is derogatory, and the people who use it often mean it to be so. If we are talking of political units of small size, which once were subject to no control from outside, the only name for them is 'tribe'. Nowadays these are divisions of larger units, which are seeking to become nations, or claiming that they are so. But when the word 'tribalism' is used, it nearly always implies a narrowness of outlook which is unworthy of people claiming nationhood, and since it is never used in relation to European populations, it inevitably implies something that Europe has grown beyond. We do not refer to the Scots or the Welsh as tribes, and so when they demand home rule we cannot logically call this tribalism. But their demand is not so very different from the demand of the Ashanti in Ghana for a federal constitution in which their territory would be one state. The Ashanti did not get what they wanted, and the sad sequel was that they were too proud to be satisfied with half measures, and ended up with nothing at all.

Nigeria, on the other hand, seemed destined to be a federation, if only by reason of its vast extent. Indeed in this case the foundations of a federal constitution were laid with the aim of decentralizing the administration rather than with the intention of meeting local feelings. But the local feelings have turned out to be very definitely there. It is true that Dr. Azikiwe's party, the National Council of Nigeria and the Cameroons, which was the first expression of nationalism in the country, took as its slogan 'One Nigeria'. It is true too that this party does have adherents outside the Ibo country where it started. But the other two large parties draw their support primarily from

geographical areas, and not from classes or groups with a common interest which could extend across these frontiers. This situation seems likely to make it difficult to develop federal parties with common policies, or even one federal party; and the logical result of this seems to be that the federal government must be dominated by the Northern People's Congress because the North has the largest number of seats. And as the Northern People's Congress has the support of the Emirs, this may create a situation in which the more westernized elements in the South feel that their advance is being hindered by the backward North. This situation might encourage the development of a single progressive party, and such a party would certainly win adherents in the North. But it might also lead to a division of the Federation.

Up to now what we have seen is a series of demands, like that of the Ashanti in Ghana, for the carving out of new autonomous units from the existing Regions. These demands provided the most contentious issue in the last stages of discussion of the Nigerian constitution.

A number of different methods, short of the division of the Federation into smaller units, have been proposed to allay the fears of these minorities. For the Ijaws who live in the swamps of the Niger Delta, divided between the Eastern and Western Regions, the solution is to treat them as a special area for which development schemes are to be financed both by regional and federal governments. For the Edo-speaking people in the West and the Efiks of Calabar in the East, there are to be advisory councils, each presided over by a Minister with the affairs of this minority as his sole responsibility. In addition steps have been taken to secure the impartiality of the police force. The commission which examined this question laid much emphasis on the principles of democratic government as the most important safeguard. It seems, however, that in some cases at least, the feeling that people of common culture should in some way be recognized as a political entity has not been satisfied. Mr. Awolowo in particular is not content with the decision to leave two provinces with a large Yoruba-speaking population in the Northern Region.

What we see in West Africa is an extreme development of local loyalties. We are talking about people for whom travel has been difficult until very recently, so that they still think of near neighbours as foreigners. They derive their sense of unity from a tradition of common loyalty to a chief, a tradition of attachment to an area of

land, a common name and sometimes a language which is different from that of their neighbours. Like everyone else, they cannot tolerate having their lives controlled by outsiders. As long as the outsiders are British, they protest along with their neighbours. But when independence is near, they find that it is not likely to be 'freedom' in the sense of unlimited control of their own destinies. Hence there arise the kind of oppositions that I have been describing; in each case some territorial section is asking for autonomy, and usually for a greater degree of autonomy than the government of the whole political unit is willing to concede.

Now as long as people stay in the place which their society as a whole regards as 'theirs', the problems which the divisions between them create may be met by devices giving them local autonomy; though if we are to go by the present attitude of the Ghana government, we may infer that newly independent rulers will prefer not to give such open recognition to breaches in their national unity. But new questions arise when people begin to move about—the questions that can be summed up in the one big question, 'Whose country is it?'

This question is associated with the distribution of the land between the different major groups that has been made in the so-called 'White Men's Countries'. This is not a territorial division in the sense in which I have been using the words, because the African populations are not expected to live their whole lives in the place that has been allotted to them. On the contrary, they are expected to spend a large part of their working lives providing the labour which is required in the non-African area.

Africans resent a system which makes them second-class citizens in countries which it is *prima facie* reasonable to call 'theirs'. But here too we are dealing with a situation that is not peculiar to the relations between Europeans and non-Europeans. It has close parallels, in similar circumstances, in the relations between Africans who belong to different ethnic groups.

Many kinds of economic development—perhaps all kinds—create a demand for labour that cannot be supplied without a redistribution of the population. We are most familiar with this phenomenon in the form of migration from rural to urban areas. In Africa it takes this form particularly in the great mining areas, but there is also a new demand for wage-labour in every place where commercial farming has been introduced. One such place which is often conspicuous in

the news is the Highland area of Kenya. Here, only Europeans can obtain rights in land, but African labourers are allowed to live there as long as they are employed by their European landlord, but no longer. This is the major grievance of the Kikuyu, who claim that a large part of the White Highlands has been carved out of their tribal lands. Where land has not been allocated to non-native use by an alien government, we do not find peoples claiming that their land has been taken from them, but we may find a closely similar relationship between employers and labourers. After all, not all the labour tenants in the White Highlands are Kikuyu; some of them belong to tribes which have no claim to the land on which they are living as tenants. Such people are in very much the same position as the immigrants into Uganda who work on the coffee or cotton farms of Ganda landowners. The Ganda too want the immigrants to stay in their country only as long as they are working; the Ganda too complain that you can't get a good day's work out of these foreigners; the Ganda too exclude them, or try to, from any share in political representation; the Ganda too describe the labourers as 'dirty people', 'lazy', 'not really civilized', 'we couldn't let our daughters marry them'. Now if a Ganda girl were to marry an immigrant she might have to put up with a much lower standard of living than if she married a Ganda, but her children would not have physical characteristics that proclaimed their origin at once. So it is clear that it is not necessarily the so-called 'racial' physical characteristics of an out-group which leads an in-group to disapprove of marriage with them.

We see in the Ganda an attitude which directly corresponds to that of the Kenya settler, and indeed of the South African nationalists. It is the attitude of an in-group resisting the claims of an out-group to a share in its corporate interests—in this case, land ownership and political rights. Arguments based on 'racial' differences do no more than buttress the antagonism of interests; and it is particularly striking to find the arguments against inter-marriage, and the attribution of innate characteristics, bandied about in circumstances where those experts who divide humanity into races would see no difference between the antagonists.

The real reason why 'race' looms so large in the territories of East and Central Africa is that identification with one of the three major divisions is held to imply a fixed position in the social structure. Of course it is the European immigrants who have been able to establish

this distribution by virtue of the immense technical superiority with which they came to Africa, and without which the economic development of the continent would not have been possible. At the time when this development began they alone could have directed it. This is a historical fact, but to recognize it does not necessarily involve one in accepting the claim which some of them make to be repaid for this by a permanent position of privilege. This is the claim that is now being disputed by the Asians and the Africans. They too have made indispensable contributions to the economic development of their country—the Indians in capital and skills, and the Africans in labour. They are no longer willing to accept as fixed the distribution of economic functions and of political power which the Europeans regard as appropriate.

In this situation the different groups have much rational and specific reason to be afraid of one another's intentions, because there are spheres in which they really are competitive. It is a fact that any redistribution of political power or of economic functions must injure the immediate interests of those who gain most from the *status quo*. In the economic field there is conflict over the distribution of land and over access to skilled employment. The dominant minority are on the defensive; they are afraid of the kind of policy that is foreshadowed in the claims of some African leaders, such as the Mau Mau promise to restore to the Kikuyu what they think of always as the land stolen from them. But the Africans are afraid too: they do not think they have nothing to lose but their chains, because they believe that they can still lose what land is left to them. This is the ever-present fear of Africans in the Federation of Rhodesia and Nyasaland, and there are circumstances that lend colour to it.

A deposit of emeralds was found in a native area in Southern Rhodesia not long ago; most people would think it reasonable that this should be developed, but this cannot be done without displacing some Africans. Others have been moved from land where, wittingly or not, they had settled outside the boundaries allotted to them; others had their land flooded by the Kariba Dam. It is true that Africans can expect some share in the developments which the dam will make possible, but it is also true that they will not be the principal beneficiaries, and it is only too likely that, through nobody's fault, the people who have been dispossessed will not benefit at all. In Northern Rhodesia some years ago it was proposed to give the status



of Native Trust Land to all the land that had not been actually allocated to Europeans; but the local European population refused to have included in the Native Trust Land the areas which it seemed possible that Europeans might want to take up in the future. In Nyasaland the Africans' principal reason against joining the Federation was their fear that the change of status would lead to the loss of their land. In all the territories with a settled European population Africans believe that all Europeans want more and more land; and even in Uganda the most acute difficulties have arisen when the government sought to acquire land for unexceptionable purposes such as industrial development or the building of the East African University College. Actually it is only in Kenya that Europeans feel that land rights as such are important among the privileges to be defended. They defend their claim to the White Highlands on the ground that they farm better than Africans would, and by doing so have made Kenya what it is; and this is true of those European farmers who do farm better.

But in the industrialized areas the privilege that is at stake is that of access to skilled employment, and here it is only the Europeans who are on the defensive. Here lines are drawn not on the map but on pay-sheets and schedules of categories of employment, and since it has come to be taken for granted that any job is *either* a white man's *or* a black man's, the question that is argued is how many of the lower rungs of the ladder the European employees will leave to the Africans. In Britain Secretaries of State reiterate that we do not stand for a colour bar; but if the European mineworkers on the Copperbelt are willing to go on strike for eight weeks over a proposal to schedule nine types of job as unskilled, that kind of protestation does not carry much weight. Nevertheless, the ceiling for the African miner has been raised a little.

But it is in the political field that in-group sentiments and stereotypes can be invoked to rally persons who are not directly faced with a challenge to their own position. Where material interests are concerned, the opposition is not always as clear-cut as it is made out to be; employers of labour are much less enthusiastic about the industrial colour bar than are skilled workers, and in the Union they are wholly opposed to the doctrine of apartheid as preached by Dr. Verwoerd. In the Union, too, local authorities are not always willing to raise the rates so as to rehouse thousands of people in neatly delimited 'racial' zones. In Central Africa there are divisions among

the Africans themselves between those who can hope to gain by the opening to them of new jobs and those who cannot. Some European trade unionists think they can make terms with African labour as the best way of protecting themselves. But when the question at issue is the weight of different voices in determining national policy, almost everyone sees the situation in terms of 'us or them'. It is true that some of the present holders of power go further than others in the concessions that they are willing to make to 'them'. But they all think equally in stereotypes and slogans. Government, they say, must be in responsible hands, and with this everyone will agree. But when they equate the word 'responsible' with the word 'civilized' one becomes more sceptical, since most people used the word 'civilized' to mean 'just like us'.

On the other side, that of the majority with little or no share in power, the slogans are borrowed from the holders of power. African leaders are familiar with the reasons why Europeans claim universal franchise as a right, and they naturally question the arguments that are used to deny it to Africans. I do not dispute that the immediate introduction of unqualified arithmetical democracy into East and Central Africa might have disastrous consequences, or even that it may be impracticable as a political system in countries as deeply divided as these territories are. I merely say that it naturally appeals to the populations whose numbers would give them predominant power under such a system.

All kinds of constitutional experiment are being tried in these territories. Some of the promoters see these experiments as stages on the way to universal suffrage, or at least to a point where the African voice will be as loud as that of the European. Some in the territories concerned see them as the most they are willing to concede. Too many see them as already conceding too much. To all Africans the concessions seem grudging and inadequate. Not all African leaders are demanding immediate universal suffrage, but they all want more than they are being offered.

In one form of constitution-building, representation is allotted on a communal basis, to use a word borrowed from India, where it makes more sense than it does in Africa. It has been announced as the aim of British policy that no one race should be in a position to dominate the others, and in Tanganyika this has been implemented by creating a legislature made up in equal numbers of representatives of the three major 'races'. In Kenya both Europeans and Africans have demanded

half the total of representative seats; the present distribution does not give this proportion to either.<sup>1</sup>

At the same time attempts are being made in various ways to get away from communal voting. In the Rhodesias this has been done by creating a common electoral roll for Europeans and Africans, with educational and property qualifications for the latter. It has been calculated that if all the Africans who were qualified had registered and voted, they would have been a force to reckon with, at any rate in some constituencies. But since less than two thousand actually did, they were merely swamped by the European vote.

The move away from communal voting is intended to promote that 'partnership' between the races which Rhodesia has proclaimed as the aim of the Federation. It is obvious that communal voting encourages the emergence of candidates who seek votes on the basis of the interest of one 'race' in competition with the others, and it is argued that parties representing interest groups which cut across these divisions can only develop if candidates have to obtain support from members of all races. But in Rhodesia even this argument can be used to block any increase in the political weight accorded to Africans. 'Merit and not race' is a fine maxim if you can find an impartial judge of merit; where it is tacitly assumed that merit is the monopoly of Europeans, there are good grounds for the arrangement in the new constitution for Northern Rhodesia, that one post of Minister and one of Assistant Minister should be reserved for Africans, as the only way to enable Africans to get their foot on the ladder. But even this has been indignantly denounced as 'racialism'.

Just as Africans have ignored elections in the Federation, so they boycotted an arrangement in Kenya whereby twelve members of the legislature were to be elected by all the existing members voting together. Here too their reason was that European votes—counting those of the Official Members—would have dominated the choice. Yet they had enough votes to affect the issue, if they had used them.

Some African nationalists seem to hold that intransigence must win in the end; and to hold also that the opposition between 'them' and 'us' is irreconcilable—that no African who can gain the votes of Europeans can be a true spokesman of African interests.

The independence of Ghana is a symbol and a portent to both sides in this political contest. To the Africans it stands for 'what *we* could do'. To the Europeans every false step, every departure from

<sup>1</sup> Constitutional changes are in progress in both Kenya and Tanganyika.

the pure principles of democracy, is an example of 'the kind of thing they do'; but if these principles are violated a good deal nearer home, that is different. It has also given a new argument to the Rhodesian nationalists, if that is the right name for those who are demanding full self-government for the Federation: the argument that Rhodesia is not 'more backward' than Ghana. People who argue on these lines ignore the fact that the maintenance of Colonial Office control in Central Africa has never been justified on the ground of the 'backwardness' of the European population; but the argument is immensely effective as a slogan.

Governments in Central Africa are so afraid of the influence of independent Ghana that they will not even allow the leader of the Ghanaian opposition to enter their territory. It is true that the very existence of Ghana is an encouragement to Africans elsewhere; perhaps too much of an encouragement, since Ghana can give them no more than moral aid and comfort. But in this sphere Ghanaians will give all they can.

The All-African Peoples' Conference that was held in December, 1958, in Accra and held another meeting in 1960 in Addis Ababa set up a permanent organization to 'accelerate the end of imperialism' and 'mobilize world opinion against injustices to Africans'.

What is perhaps more interesting, however, is its avowed aim of working towards a 'United States of Africa'. Here again we see how the sense of unity is created by the sense of opposition, and again we must ask whether such a high ambition will prove possible of achievement when the time comes to ask which voices will call the tune. Again we see the paradox of the discrepancy between the wide horizons of African leaders and the narrow ones of their followers; of course this is not confined to Africa, but the leaders of older states do not usually set their sights so high. But the idea of uniting the new African states as they emerge is not a mere idealistic dream; it would be very desirable for material reasons that they could be organized into larger units. Most African leaders realize how slender their resources are, and several of them look in this direction for their salvation. The declaration of union between Ghana and Guinea was a serious attempt to set the process going; Mr. Nkrumah has indicated that the constitution of the union will be one to which other African states can adhere. Some of the territories in the French *communauté* are seeking to combine in federations that would be more genuinely federal than the system in which they were grouped in the past.

In Central Africa Dr. Hastings Banda sees as the way for Nyasaland to escape from federation with the Rhodesias the creation of a new federation with Tanganyika, the Trust Territory of Ruanda-Urundi, the predominantly African parts of Northern Rhodesia, and eventually Kenya. This is the most visionary of all the proposals, and it has already been repudiated by the African National Congress in Northern Rhodesia. It will be one of the most interesting questions for the future to see whether such combinations can be built up and maintained by neighbours who have so recently been strangers.

## II. Race, Nationalism and Communalism in Asia

*by Hugh Tinker*

THIS brief survey of race and communalism in Asia does not cover the Near and Middle East, or Soviet Asia. In both these areas, powerful ideologies, past and present, have shaped the attitudes of their peoples upon distinctive patterns. The area remaining under consideration, Eastern and Southern Asia, from Japan to Pakistan, is sufficiently vast and varied to ensure that for every generality advanced below it would be easy to counter with an exception. But—to begin the generalizing—within this continent, in contrast to South Africa, the races and racial attitudes are seldom sharply defined. Everywhere in Southern and Eastern Asia the races ‘blend and blur’ and (as a rule) only the recent, long-distance immigrants can be sharply differentiated. Nevertheless, there is a corpus of traditional feeling and custom regarding ‘outsiders’ that shapes popular attitudes and produces something akin to racialism.

First, let us attempt a broad classification of racial types in Asia. The European scholars who began to classify the peoples of Southern Asia early in the nineteenth century often did not distinguish between race and language. In India, a basic distinction was drawn between the Aryan and Dravidian ‘races’. Yet a South Indian Brahmin speaking, for example, Kanarese (of the Dravidian group) might be descended from Indo-European stock. In South East Asia, tribal lines have usually been drawn by ethnologists according to language or dialect, whereas some tribes are known to have adopted the language of more powerful neighbours in order to assimilate towards a desired social status or economic level. But if it is scientifically inaccurate to equate language with race, the older ethnologists were not in error in singling out language as the prime cause of unity and division. In Asia, as in Europe,<sup>1</sup> the members of one’s own language group are in a much closer affinity than members of other language groups: as in Europe, language is the basis of nationality.<sup>2</sup> Race

<sup>1</sup> The English-speaking Irish are the most important exception.

<sup>2</sup> India forms a partial exception to this dictum: the Indian situation will be examined later.

(however established biologically) is not so tangible a bond as language.

The racial diversity of Asia cannot be satisfactorily described within this chapter. The great Mongoloid family which stretches from Siberia, across Eastern Asia, out into Oceania, and over the mountain barrier of North India, may be divided into many types, such as Malaysian (peopling Taiwan and most of island South East Asia), the mixed Japanese, the southern Mongoloid, and the great Han or northern Mongoloid race, as well as others. Southern Asia has been settled successively by Negritoid, Vedoid (or Australoid), Melanesoid and Indid (Aryan). In certain cases, geographical remoteness or isolation has preserved a group in a 'pure' form as a distinct type (as in the Andamans) while caste in India has helped to perpetuate separate physical types. But even within a tribe or a caste there will be measurable variations in pigmentation, hair form, blood type or other inherited physical features. A relatively limited and isolated area such as East Bengal contains individuals exhibiting Caucasoid, Mongoloid and perhaps Melanesoid traits; but all these individuals regard themselves as Bengalis, because all speak Bengali; and because of their Islamic inheritance they have now identified themselves with the Pakistani nation. Group solidarity in Asia is much less founded upon fact (what one is, according to racial type) than upon fancy (how one thinks of oneself, in terms of language, religion and other differentials). Group solidarity has traditionally extended to a relatively small social unit, but today this is slowly giving way to an identification with the nation state—but this process has been completed only in one Asian country—Japan.

Traditionally, Asian society has been composed of communities, not individuals, and the ties of community membership have worked against the individual identifying himself with the nation. In areas of ancient settlement (such as the riverine plains of North India and North China) the community has been the village: the nucleated village in the midst of its fields. Another foundation for community was kinship (often traced from remote times) in the tribe, caste or clan. Kinship ties might be coterminous with the village itself, but more often (for example, among the widely scattered Muslim tribes of Western Punjab) it spread far beyond. In South East Asia still another kind of community, the 'service group' or regiment, held sway. In Upper Burma there were village communities designated as cavalry, infantry and warboatmen, while in Siam the whole popula-

tion was classified into categories according to trade or service. In all these communities, there were elements, however atrophied by time, that went back to the earliest stages of the formation of human associations: the patriarchal family, common interests in land settlement and cultivation, mutual defence, inter-related economic functioning.

What of the larger loyalties? Everywhere there was allegiance to a ruler who was in some sense a protector, whether a petty hill chieftain or a semi-divine monarch, as in Japan or Hinduized South East Asia. Frequently this ruler would perform a ritual part in the cycle of seedtime and harvest: such was the 'Royal Ploughing' in Burma, when the King by starting the ploughing of the royal paddy fields ensured an abundance in the harvest. Religion was sometimes a very positive bond, as, for example, among the Muslim puritans, the *Wahabi*, who actively and fraternally pursued their duty of creating the Rule of the Faithful, *Dar ul Islam*. But religion was more usually a less tangible cultural link: the Buddhist pilgrim, travelling from monastery to monastery, would find in the Burmese *kyaung* and the Siamese *wat* a common matrix of learning and religion. But this did not prevent continual wars between the Kings of Burma and Siam.

Speakers of a single language, as has been suggested, were co-heirs to a common cultural tradition. The Indian expression, *madari zaban*, 'mother speech', well exemplifies this family sense. How far can one talk of a sense of nationalism—in its modern application—as prevailing in traditional Asia? It has often been argued that nationalism is a product of Western ideas, yet even in India, least nationalistic of Asian societies, there was a sense of *Aryavarta*, the land of the Aryans, bounded on the north by the Himalaya, Home of the Gods, to the west by the Indus, and to the east by the Brahmaputra. Within these bounds was the holy land of Hinduism, and six centuries of Muslim domination did not efface folk-tales of the Ramayana and Prithvi Raj. Autochthonous hill peoples, Bhils, Konds, Santals, etc. (now termed Adibasis), were outside the Hindu system. But a process of absorption began among their chiefs who often acquired Sanscritic pedigrees and emerged as Kshatriyas, or knights of the second Hindu caste. Hinduization of tribal society at large slowly continues, as in the Kond Mahals of Orissa today. In China there was the much more intensive cultural nationalism of Confucius, defining minutely the relations between the State and the subjects. The outer, non-Han races were required to conform to the



Confucian model. The process was compulsive—especially among the southern tribes—rather than assimilative as in India. In Burma, Siam, Japan, there was, among the dominant ethnic group, a definite sense of folk pride and history. By contrast, in the archipelago that now forms the Philippines and Indonesia it is difficult to find any 'national' myth that even roughly can be correlated with the political boundaries of today. Even in lands where there was a sense of country and cultural unity, the actualities of society, poor communications and local self-sufficiency served to make local life provincial and isolated.

How did traditional Asian societies regard foreigners? Much the same as in medieval Europe. In the great trading marts, along the Silk Road and other trade routes, the foreigner was accepted and his position was recognized and regulated. But unless made familiar by trade, or equally by religious pilgrimage, the foreigner was the object of suspicion and often hostility. Hostility (it is perhaps unnecessary to add) increased in direct ratio to the numbers of the foreigners. And over all was the suspicion of the outsider who might somehow bring pollution or might herald aggression. The Indian term *Mleccha* denotes someone outside of society, not ritually acceptable. Chinese self-sufficiency and the Chinese attitude to all foreigners as tributaries or clients is well-known.<sup>3</sup> In South East Asia there was a reciprocal attitude of arrogance. Sir Hugh Clifford describes the game 'Main China' as it was played in old Malaya. Malays would bet on the sum of money carried by a Chinese stranger, and would cut off his head to ascertain who had guessed right. 'Why cut off his head?' asked Clifford. 'Oh, it was more fun . . . and he was only a Chinese.'

Among the motives for Asian aversion to foreigners that parallel the prejudices found in the West, religion and economic rivalry predominate.<sup>4</sup> The Chinese miner, or the Indian trader by his industry, trade connexions or technical superiority, would often outpace

<sup>3</sup> In nineteenth-century documents, Chinese officials refer to foreigners as *I*, which is usually given the connotation of 'barbarian' (e.g., *Nan-I*, 'southern barbarians' for the people of South East Asia and the Europeans). But they also used the neutral expression *Wai-Kuo-jen* or 'Men from Abroad'. *Yang-Kuei-Tzu*, 'Foreign Devils', and other such epithets are used in the same way that other nations refer to 'Wogs' or 'Gooks', although the Chinese attitude arises out of the behaviour of the foreigner, not his racial origin.

<sup>4</sup> A third common reason for racial prejudice in the West, the foreigner's appropriation of 'our' women, may have been present. Indians in Burma or Chinese in Malaysia very seldom brought women with them, and married or cohabited with local girls. Those who were prosperous found little difficulty in attracting wives.

the indigenous Malay or Burman. In religion, the foreigner's habits were often visibly offensive. To the Hindu, with his elaborate regimen of ritual cleanliness, the Muslim or the Christian with their laxer standards of personal hygiene, appeared dirty, even disgusting. The Muslim Malay resented the Chinese keeping pigs. On the other hand, the Buddhist Burman resented the Muslim Indian slaughtering cattle, whether for food or ritual sacrifice. Where the foreigner was a fellow-believer (like the Arab trader in a Muslim port in Sumatra or Malaya) he was much more easily fitted into society.

Race relations entered an entirely new phase with the arrival of the Europeans. As early as the fifteenth century the Portuguese were creating a new kind of racial hatred by their policy of terrorism in the name of Christ. But the main impact of the West—as expressed in policy, administration and ideas—came only in the early nineteenth century. Gradually, as the power of the West was unrolled, the most progressive Asians decided that their countries could only survive and develop in an age of Western dominance if they were reformed and reinvigorated by the introduction of Western ideas and techniques. In India, Ram Mohan Roy led the way with a demand for Western education and for Western political and civil rights; such as freedom of the press and the liberty of the individual. The new higher Western education was almost everywhere transmitted through a European language, predominantly English, so that English became a means of common communication for the newly emerging middle class of Southern Asia. Thinking in English, the new professional class (lawyers, doctors, professors) demanded the rights and liberties of Englishmen. Many of the new university colleges and high schools were established by Christian missionaries, and the aspiring youth of Asia was exposed to Christian doctrines of social reform. The 'political' aspect of this teaching was accepted—such as emphasis upon the equality of man, but the missionaries' attack upon Asian religion and tradition was often fiercely resented. In India, sati (the burning alive of widows), child marriage and all caste discrimination were assailed; in China, polygamy and foot-binding. All too often, nineteenth-century Christianity appeared to postulate the superiority of the West over Asia, sometimes in a narrowly philistine spirit. Reaction followed: there was a reassertion of Asian values: the renaissance of Hinduism in the various Vedanta movements and a Buddhist revival in Ceylon and later in Burma.

Among the new levels of political and social leadership in South

and East Asia a new doctrine took hold; a nationalism that seized upon the idea of 'national self determination' and proclaimed the right of every people to be free from alien rule; a nationalism that revolted against Western dominance and the exploitation of Asia by the West. This new nationalism was a compound of Western political ideas, together with a rejection of Western claims to superiority.

The growth of Asian middle-class nationalism was paralleled by an increasingly racial attitude among Europeans in Asia. The change should not be presented in absolute terms; there was no 'golden age' of East-West relations, followed by an age of iron; but there was an increasing sense that Europe (specifically Britain, of course, among the British) possessed a prescriptive right to rule the 'lesser breeds without the law'. This attitude has been ascribed in India to the British triumph in the Mutiny. But although the Mutiny accentuated the trend it was only one important factor among many.<sup>5</sup> At British universities, especially at Oxford, a new tone of authoritarianism was heard from political theorists like T. H. Green. A new emphasis laid upon government regulation, upon 'forcing men to be free', had its effect upon Oxford-trained Indian Civil Servants. Similarly, a crude interpretation of Darwin, concentrating upon the 'survival of the fittest' seemed to offer scientific warrant for a concept of racial supremacy based upon performance. And so a racial philosophy of character was formed; English were endowed with pluck, integrity, drive; Orientals were lacking in responsibility, indolent, corrupt, etc. This view of race as a moral determinant is well illustrated in Rudyard Kipling's work. Kipling was a racialist who yet believed in the regenerating power of the work of Empire, whereby a Pathan outlaw might become a stalwart of the Guides Cavalry. In this way Gunga Din, the regimental water carrier, was able to attain the level of an Englishman. . . .

'For all his dirty hide,  
He was white, clear white, inside . . .'

But the attainment of this moral 'whiteness' was not given to many Asians. In 1889, Lord Salisbury commented upon the attempt of Dadabhai Naoroji, the Parsi, to enter the House of Commons: 'I doubt if we have yet got to that point of view where a British constitu-

<sup>5</sup> For example Meredith Townsend, later editor of the *Spectator*, was writing in March, 1857—before the Mutiny began—'All the parliaments in the world cannot make a native and a European equal.' Vide *Friend of India* newspaper, 12 March 1857.

ency would elect a black man.' When reproached for his intolerance, Salisbury made things worse by explaining that, 'the colour is not exactly black, but at all events he is a man of another race'—this, it seems, implied a certain deficiency (nevertheless, Naoroji was duly elected). This elaboration of a racial attitude among Europeans towards Asians needs to be stated because many Asians were moved to retaliate by bitter attacks upon European rule and by asserting that Asia, unlike Europe, is free of racial feeling. Such a distinction is still maintained by many Asian intellectuals today.

British dominion in Asia originated in India, and it was extended by means of the Royal Navy and the Indian Army to Aden, East Africa, Burma, Malaya and Hongkong. The administration which followed drew upon Indian resources, and many of the large economic enterprises throughout this Indian Ocean area were British-Indian in origin. Thus, to supplement the small numbers of Gujerathi and other merchants who had long represented the Indian community overseas, there now came a mass emigration of thousands of Indians—coolly labour, soldiers, technicians, clerks, money-lenders, and professional people—pouring into the British colonies of the Indian Ocean seaboard. Another and even greater flood of emigrants left Southern China for the *Nan-Yang*, the 'South Seas'.<sup>6</sup> Most of these landed as poor coolies, but many made fortunes in these lands of opportunity. Many of the emigrants were absorbed into largely new economic sectors, Indians into tea and rubber estates, Chinese into tin-mines, and both into the oilfields. But some of the emigrants shouldered aside the indigenous peoples in agriculture and other pursuits. Often these emigrants were installed in positions of conspicuous power: in Malaya, the Tamil station-master, the Sikh policeman, the Chinese haulage operator, the Chettyar money-lender, the Chinese bank-official (the Comprador); all were in a position to give or withhold favours from the country Malay, who resented these intruders into 'his' land. It is in this context of the 'plural society' that Asian racial tension chiefly is bred. Within the plural society the different races dwell, physically, alongside, yet hold no communication other than that of the market-place or the

<sup>6</sup> Latest figures suggest that there are some 700,000 Indians in Malaya, and also 700,000 in Burma. In Ceylon there are 1,021,000 Indians; in Indonesia 27,000 and in Thailand, 20,000. Overseas Chinese include 2,300,000 in the Federation of Malaya and 920,000 in Singapore. Thailand has 3,000,000; Vietnam some 900,000; Indonesia, 2,200,000. There are 350,000 in Burma; 200,000 in the Philippines and 180,000 in Cambodia.

office counter where all too often one of the communities is conscious of being at a disadvantage. They are not conscious of common interests or loyalties or traditions: they are all too conscious of conflicting and competing interests and loyalties.

The struggle for national independence became sharply defined in the 1920s and 30s and attained its climax in the 1940s. The politically active middle class was united in a common cause, in the struggle with the colonial Power for independence. To the suggestion advanced by some European writers that national unity was more a distant ideal than an immediate reality, they countered with charges against the Imperial Power of deliberately pursuing a policy of Divide and Rule, of setting differing religions and classes at each other's throats. In this atmosphere, any dispassionate assessment of factors in national unity was impossible. Yet in some instances, as the withdrawal of the European overlord became ever more imminent, there was a drawing apart of political groups which had achieved a paper accord in days when independence had seemed more distant. This drawing apart especially affected the Muslims of India, who eventually formulated a demand for a separate nation-state. When the colonial Power resisted the independence demand, as in Indonesia, a synthetic unity was preserved, but here also disunity has followed the departure of the European. Indeed, in most of the new countries of Southern Asia powerful forces are working against the new national unity, harking back to older loyalties.

One important cause is the attempt in almost all these former European dependencies to abolish the use of the language of the European in political institutions, the administration, the law and education. But if English and Dutch are discarded there is the problem of finding an acceptable substitute. Almost everywhere the proposed national language is the mother speech of a major population group, and it could in time develop into a genuine national tongue.<sup>7</sup> But the language fanatics cannot wait for natural processes to take effect. In India, Ceylon, Malaya and Burma, a national language has been imposed by political demand upon unwilling compatriots. There has been an attempt in Indonesia to create a new, synthetic speech, *Bahasa Indonesia*, while in Pakistan the violent

<sup>7</sup> The ascendancy of the East Midlands-London dialect in England was achieved only very gradually. The use of Norman French in Courts of Law was not finally discontinued until 1731. A last vestige persists today in the formula for acceding to legislation, 'Le Roy Le Veult'.

rivalry between Urdu and Bengali has led to a consideration of the use of Arabic as a possible compromise; but meanwhile English remains. The imposed language policy has led to determined resistance in India and Ceylon. The Tamils of Ceylon refuse to accept Sinhalese, particularly as they suspect (with some reason) that this is a device for paring down their leading share in government service and business. Throughout India there has been a surge of resentment against attempts to impose Hindi upon Bengalis, Marathas, Dravidians and others. Moreover, the Hindi champions have not been content to adopt 'Bazaar Hindi' which has some claim to be a *lingua franca*, but have sought to create an exclusive, literary Hindi that omits all words of non-Sanskritic origin.<sup>8</sup> As a result of this linguistic authoritarianism, politics at the State level in India has become deeply riven by regional linguistic demands. In 1956, in response to regional pressure, the entire political map of India was reorganized on linguistic lines. Bombay State remains a battleground between Gujerathi and Marathi speakers, while in Madras new parties have emerged—and have won constituencies—based on a demand for an independent Tamil nation-state (the Dravida Munnetra Kazhagam is the most active of these parties).<sup>9</sup>

The acceptance of Burmese as the national language of Burma offers far fewer problems: it is the mother speech of two-thirds of the population, and is readily understood by three-quarters. Yet even in Burma the Shans talk about secession, partly because of Burmese 'cultural imperialism'. The adoption of Malay as the national language of independent Malaya follows upon the use of Malay in the district administration and even in the Councils of the Sultans during the British period. Yet the Chinese in Malaya form a minority that may well be a majority within twenty years or less, and it remains to be seen how long they will tolerate the exclusion of their tongue from use in the administration and courts of law. The elections of May, 1959, in Singapore (in which Chinese language versus English language education was an issue) appear to offer a warning that Chinese linguistic nationalism is rapidly gaining ground in Malaya.

The potency of language divisions in Asia as a source of quasi-

<sup>8</sup> Thus, the village accountant who has been called a *patwari* for 500 years has been renamed *lekhpal*. This is just as though in England purists were to demand that the term 'Mayor' be abolished as a parvenu Norman intrusion in favour of 'Moot-Master' or some such contrived Anglo-Saxonism.

<sup>9</sup> The Bombay State was bisected in 1960.

racial conflicts was grimly illustrated by the Colombo riots of May, 1958, when in three days of Tamil-Sinhalese conflict 300 were killed and 12,000 rendered homeless: this in a country that attained independence without any shedding of blood.

Equally potent as a source of communal conflict is religious bigotry. Islam appears to be specially susceptible to the cry of 'Religion in Danger', as the Lahore riots of 1953 demonstrated. The city of Lahore, together with other Punjab towns, was plunged into mob-anarchy over the issue of the Ahmadiyya, a Muslim dissident sect (heretic, some would say). Chief Justice Munir in his report after these riots observed: 'This inquiry has shown that the people can be persuaded to go to any length in the name of religion.' Islamic bigotry has shown itself in independent Malaya, though receiving no countenance from the present government. In Indonesia, the *Dar ul Islam* is only the most extreme of a number of parties appealing to Muslims to establish the state upon Islamic principles. In India, also, political agitation based upon religion is by no means defunct, despite the poor showing of the communal Hindu parties at elections. The Buddhist lands of South East Asia generally reflect the tolerance and charitableness of their faith; but occasionally sections of the monks will endeavour to bring religion into politics, as in the monastic agitation of September, 1954, against Islamic teaching in state-supported schools in Burma. In South East Asia, pseudo-racial divisions along religious lines have most often arisen in relation to militant Christian minorities. The Karens in Burma have folk memories of ancient hostility with the Burmese, but their continuing sense of separateness was undoubtedly accentuated by the Christian cultural separation of their leaders and their identification with British authority, through the mediation of the missionaries. Similarly, the Ambonese and other Christian communities in Indonesia (such as the Minado of Celebes) have found most difficulty in coming to terms with the new republic. The position of the Catholic community of Vietnam is not dissimilar, though the dominant position of President Diem, himself a Catholic, serves to shield them.

Finally, problems of racialism (or, more properly, tribalism) arise with regard to groups which were until recently upon the fringes of colonial rule, largely insulated from its transforming influences. The Naga tribes of the Assam-Burma border, brought only under the loosest kind of British administration, now resent Indian attempts to extend the scope of authority; the Nagas demand their own separate

Naga State. The Pathan tribes which straddle the Durand Line between Pakistan and Afghanistan are still Afridi, Mahsud or Mohmand first; Muslims second; and nationals of a twentieth-century polity only so far as suits them. The Muslim tribes of Sulu and Mindanao, similarly, belong to a frontier area that takes little account of the political boundary between the Philippines and Borneo. Some might argue that the Tibetans are only the largest of these isolated pockets of folk whom time has passed by; frontier societies which are now being rudely forced to conform to the international boundaries of the twentieth century.

If within the new countries of Southern Asia there are many fissiparous forces there are also important ties that bind together. Most of the new nations have chosen to undertake programmes of economic expansion by means of state support, state enterprise (nationalized industry) and state planning. State planning and investment have a dual effect. State control and direction almost inevitably entail centralization; they also encourage a nation-wide view, the planners are compelled to consider national income and national production and to see the whole country as one integrated economy. Yet planning in its olympian remoteness, its wide-ranging consequences, can awaken sectional dissatisfaction. Every State in India finds it necessary to demonstrate its discontent with the allocations of the Planning Commission by exceeding the development budget laid down by the centre. For many years, East Pakistan contrasted the generous allotments for industrial development to the western wing with the meagre doles to the east. The neglect of Arakan by the central government in Rangoon was a prime cause of the formation of a separatist Arakanese party. The alleged concentration of development in Java (at the expense of oil revenues earned by Sumatra) was a considerable grievance leading to the 1957 rising in Sumatra and the setting up of a separate Revolutionary Government. Yet even though it is necessary to enumerate this list of planning failures, in the long run planning and development should serve to draw together the separate regions within the nation. There are other, less equivocal forces. National political parties can unite leaders of varying regional cultures within one common organization and programme. The Muslim League, before it fell into decay, offered the surprising phenomenon of Oudh landlords, Bengali schoolmasters and Punjabi yeomen-farmers united behind the leadership of an Anglicized Bombay barrister in the common cause of Muslim rights. The Congress in India, despite



regional stresses, continues to draw together men of differing faiths, differing tongues and differing social and economic status. In Malaya, for however long, upper middle-class Malay and Chinese politicians have been able to form an 'Alliance' party that has successfully steered the country into independence, despite the absence of any tangible cultural or even economic bond between them. Perhaps even more vital as a factor for unity are the national civil service and the fighting services. The young administrator or army officer is selected on a basis of fitness; he is conscious (perhaps too conscious) that he belongs to an élite, in which social or regional origin is of little account. He will learn the national language and employ it in his work.<sup>10</sup> He will almost certainly be posted to districts far from his home, and he will be engaged upon duties which have a national and not a local significance. The major universities also provide a unifying influence. At the University of Rangoon, or the University of Malaya in Singapore, students and staff rub shoulders with colleagues from every part of their own country and from overseas and become conscious of a wider empathy. The press and the radio are also forces acting for unity whose influence has only just begun. Similarly, better communications are breaking down the particularism of yesterday. Only thirty years ago, many South Asian peasants never visited more than a dozen miles from their village (except, maybe, for an occasional religious pilgrimage). Now, the ubiquitous country bus offers the opportunity of cheap travel to all. On another level, air-travel has helped to bridge the vast distances of Asia as the train never could.

In tracing the broadening of loyalties from ancient village or tribal particularism towards the attainment of national unity, it is necessary to turn aside and notice the emergence of a different pattern in China. In the past there was the Confucian model of civilized relations, to which the non-Han minorities and the frontier peoples were forcibly compelled to conform. The only mitigation of the Sinoization policy lay in the frequent inability of the central government to enforce its mandate over the fringe territories of the Middle Kingdom, as in Tibet for many centuries. The Kuomintang régime renewed this traditional policy and Chiang Kai-shek's political testament, *China's Destiny*, was notably xenophobic. The Communist government reversed the whole policy of cultural Sinoization: the non-Han

<sup>10</sup> The Pakistani civil service probationer has to learn the language of the wing to which he does not belong: e.g., Urdu, if he is a Bengali.

peoples were encouraged through festivals and other means to give expression to their own arts and crafts, while the study of regional languages has been fostered in schools and universities. Varying degrees of political devolution were bestowed upon the minorities: the largest units are the five Autonomous Regions extended to the Mongol, Uighur and other races. This appears to follow the established Soviet policy of creating republics in Central Asia representing linguistic or racial entities, such as Kazakhstan. This policy is designed to by-pass the basic dilemma of Western colonial rule: the rise of nationalism, feeding upon the political tradition of the colonial power, but anti-colonial. The Soviets have avoided the issue of racial distinction at least on the surface by not setting apart the Russians as a ruling race. It may be that a majority of the higher government officials and technicians in Central Asia are European Russians but they were—they say—selected purely for their party or professional qualifications. And in addition there are millions of other Russians in Central Asia (specially young people) who are working with their hands in agriculture or industry at a social and economic level no different to that of a Kazhak or Turki labourer. Whatever resentments may lie beneath the surface, outwardly there is an appearance of equality. Will the People's Republic of China be successful in creating a Communist order in which nationalism is merged in unity? Tibet appears to represent a denial, but these are early days; there were revolts in Central Asian republics soon after the Soviet revolution.

Meanwhile, nationalism is the political fashion in South and East Asia. The leaders of the newly independent countries are intensely determined to establish their parity with older states, rather like German and Italian statesmen and publicists in the nineteenth century. So far, nationalism is most articulate in continuing the battle with the departed European Imperial Powers. Indonesian unity can be given a fillip by raising the issue of Irian Bharat or West New Guinea, still under Dutch rule. Suez, as an apparent effort to re-assert British and French dominance in the Middle East, provoked a united and spontaneous protest from Southern Asia—a protest by people in crowds, rather than by governments. The growth of a pan-Asian movement—the Bandung Afro-Asian Conference, and its successors—has hinged upon anti-colonial unanimity, and almost on that alone. Apart from opposition to colonialism, international opinion in Asia coalesces on the problem of economic

development. The U.N. is valued for its economic and technical agencies, but perhaps more as an organization in which the powerless have an authority equal to that of the powerful. Fear of stronger neighbours (Ceylon's fear of India, Thailand's of China, Cambodia's of Thailand, etc.) is certainly a factor in foreign relations, but this fear is seldom categorically stated, whereas misgivings about the West are almost always overstated. Within the Asian family only one country, Japan, looks out at the world with cool realism.<sup>11</sup> Those who will trade will be cultivated, whatever continent or island they belong to. But almost every other non-Communist Asian country is still wrapped in a mantle of suspicion of the old Imperialists (Britain, France, Portugal, the Netherlands) and the new Juggernaut, the United States. This image of Western Europe and America as protagonists in a system that means inequality and oppression is, however, not applied by Asians to individuals of these countries. There is hostility to foreign policy; sometimes hostility to the material evidence of this policy (as to the personnel of American military bases) and occasionally to manifestations of economic imperialism, such as oil companies. But the individual Englishman or American is treated with courtesy, unless he is quite unusually offensive in his behaviour. Racial prejudice against Westerners is occasionally artificially stimulated by propaganda (as in the time of the expulsion of the Dutch from Indonesia), but despite the fierce struggle of Asian nationalism against Western colonialism during the last two decades, a white skin is not today a disability in Asia. Indeed, the Englishman returning to independent India meets with nothing but friendship. Colour, as such, is not an appreciable cause of racial intolerance in Asia. The threat of discrimination or violence lies most in religious or economic pressures. Religion has always provided a latent source of communal discord in Asia, and religion allied to a crude nationalism is even more inflammable. The conflict which accompanied the transfer of power in India, when some fifteen million Hindus, Muslims and Sikhs were driven from their homes, while perhaps half a million were killed, was only the most terrible of recent clashes. The economic factor is often exposed in reaction against the commercial domination of the foreigner, which is even more resented in this day when economic exploitation is often regarded as the greatest evil of colonialism.

<sup>11</sup> But the conclusion of a defence agreement between Japan and the United States in 1960 was the signal for the most violent outburst against American dominance yet seen in Asia.

Thus the Chettyar community of moneylenders who come from South India have seen their land-holdings in Burma expropriated and their credit operations virtually brought to an end. In several other South East Asian countries, in Thailand, the Philippines and South Vietnam, draconian measures have recently been taken against the resident Chinese communities with their large-scale control over commerce and industry.

The conclusion which this writer draws from a survey of 'race' relations in Asia is that, despite special circumstances and the special forms assumed by nationalism and communalism, the problem in Asia reflects the universal problem. Almost every one of the situations analyzed above could be duplicated in European history, and many in the Americas. If Asia has been spared the tragedy of Africa it is because historical development, particularly economic development, has evolved differently. To isolate one element, nowhere has a powerful planter or *baas* community emerged as a separate racial group with the ambition of seizing the strings of government. But this does not mean that Asians are cast in a different mould in their response to racial or nationalistic impulses: human nature is not different in Asia. The integration of the Untouchable in India is just as much a 'racial' problem as the integration of the Negro in the United States.

## Epilogue

*by Philip Mason*

**I**N the introduction to these papers I sketched a continuous thread of argument which seems to me to run through them. In this final chapter I shall suggest certain conclusions which I think may be drawn and also refer to some of the points raised in discussion. To consider in retrospect the discussion which took place after each paper was read and to determine which points should be mentioned in the conclusion is a process with some resemblances to that of evolution; a point might appear which was undoubtedly interesting, which seemed at the time relevant to the main discussion and which clearly grew from what came before, thus resembling one of those mutations which have led to nothing but which to an obstinately teleological mind might look remarkably like an experiment. Yet in retrospect, considering the whole range of the trends revealed and the need to limit progress to one direction, both the point and the mutation fail to survive.

Though they are not always easy for a layman to read, the biological chapters present least difficulty in this final section. This is because the greater part of their considerable value to the discussion of race relations is negative. The biological conclusions cut away erroneous ideas but they do not yet present a positive content which is anything like equivalent to the negative value. It would not be true to say that the certainty with which a biological fact is known is in inverse ratio to the interest it arouses in the popular mind; it is however true that for the purposes with which we are concerned, it is usually the quantitative or multifactorial characteristics which are of most interest, while it is with regard to the other characteristics—qualitative or polymorphic—that the greatest certainty about genetic transmission is achieved.

Biology can affirm positively that man is one species. It can affirm that the number of genes involved in transmitting the characteristics most relevant to our purpose—such as intelligence and bodily strength—are so many that the odds are heavily in favour of a score by any given individual somewhere near the middle of the possible range of differences in that population. And it happens to be a fact that the

range of this kind of difference within a population is usually much greater than the differences between averages, while there is always overlapping of the lower end of one range by the higher of another. It is with more caution that the biologist would approach conclusions regarding genetic mixture between two strains. The evidence regarding human crosses is, from his point of view, scanty and imperfect. It is not safe—he would go on—to draw conclusions from what we know of crosses between strains in other species, but nothing so far indicates that there are likely to be adverse biological results to the crossing of differing human strains.

There are two other conclusions to be drawn regarding the nature of the biological contribution to race relations. The first emerges from Professor Lancelot Hogben's chapter. Thought does not proceed in a vacuum, even in a subject so clearly part of the physical sciences as biology; it is affected by the politics, the philosophy and the social situation of the day. Secondly, no one really supposes that man is a 'wild' species in the sense envisaged by *The Origin of Species*. The evolution of man proceeds not merely by natural selection, nor even by the kind of sexual selection which we attribute to animals. A stage arises in which human sexual selection—and therefore man's genetic future—is governed by social factors; there is a further level at which a mate is sometimes chosen after intellectual decisions and appraisals which hardly apply in the case of the orang-utang. Finally, there emerges from the biological discussion a need for research into the results of the mixing of races or strains considered in the light of their whole environment. We need a comprehensive study of each of the parent stocks of a recent mixture and of the hybrid result, each of the three being related to its social as well as to its physical surroundings. One work only was quoted in the course of discussion on this subject and there was general agreement that far more studies of an even more comprehensive kind would be of value.

It is much less easy to draw conclusions from the second section; less is known, yet what we do know is more positive. But outstanding in the whole discussion is the rejection of any idea that one single factor can account for the complex and varied phenomena of race relations. Let me suggest an analogy from a non-human, and therefore considerably simplified, phenomenon. A moment comes in the history of a hive of honey bees when the workers turn on the drones, slaughter them and expel the corpses from the hive. That

moment is decided in accordance with facts which it is surely not entirely fanciful to describe as biological, social and economic. The Queen has been fertilized, and the supply of future workers provided for; the season of easy honey has come to an end. The drones are no longer wanted. Yet surely it is with a certain gusto that the virgin toilers turn on these idle burly males, who have so long eaten far more than a reasonable share of the honey for which the workers have laboured all day. Surely during May and June, as they buzzed about their labour, they must have repressed a considerable animosity which came to the surface when the moment of slaughter arrived?

It is, one hopes, an excusable biological arrogance to suggest that human affairs are more complicated than those of bees. Yet in this one action, which takes place in every healthy hive every summer, one can perceive something which by a metaphor may be called a psychological impulse which comes into action when the social and economic factors are favourable. It is only a metaphor. Since bees are, we believe, deprived of consciousness, their actions cannot be equated with those of human beings, in which there is usually some degree, however slight, of consciousness present. In human history there is present another element, that of leadership and decision, particularly as to the right moment for action. It is hardly possible to speak of decision in the case of the bees; the method by which the right moment for the massacre is determined is not fully understood. It is probably analogous to the change of direction in a wedge of teal flying in formation, and lies at one end of a scale, at the other end of which is the single and wholly conscious decision of one human leader—something far more frequent in elementary textbooks of history than in reality. But leadership does play a part in such phenomena as those of Notting Hill in August, 1958; a psychological predisposition, exacerbating factors such as a housing shortage or a slight recession in employment, a spokesman to put into words what is at the back of many minds—all these surely contribute to a situation which must be seen in its local context and yet related to a wider national framework.

There is another analogy, which again should be used with caution but which appeared by implication in several contributions to the discussion; a whole community will seem to employ psychological mechanisms very like those of an individual. Hitler's Germany had been humiliated and branded as criminal; rejected by the comity

of nations, unable to achieve internal integration, the nation as a whole—that is, most of the people for most of the time, the nation in so far as it can be personified—projected on to others what it disliked in itself and in an orgy of race hatred became an international delinquent. In America, the Southern or Confederate States, defeated in war, occupied by their enemies, forced to accept a way of life they wished to reject, developed a pattern of segregation which grew steadily stronger in the years between Gettysburg and the First World War.

A third example might be added, the reaction of a much smaller community. After the Mau Mau emergency, a visitor to Kenya would notice again and again, in the Europeans who so recently had guarded their children night and day with weapons in their hands, a remarkable generosity to the African in general and in particular to the Kikuyu. A recognition, at least in words, that 'the African' must make progress and be allowed to advance rapidly was almost universal. But the psychological effort involved in achieving this generosity exacted a price; it was compensated by an irrational, and to a detached observer almost pathological, exhibition of dislike for 'the Asian'. This was to be seen in individuals; it was not expressed in the acts of Government because the Government of Kenya is ultimately responsible to the Colonial Office. But the reaction was so widespread that it does surely call for comparison with the national group reactions just referred to and, on a very different level, with the action of the bees.

Another analogy between the group and the individual seems to arise from some of the points made verbally. It is not unusual, in the societies where social status is largely determined by racial origin, for a child of the race with the social advantage to be brought up by a nurse of the race which is socially at a disadvantage. Such a child will often feel a deep affection for the nurse; it will often play happily with the nurse's own children. But a moment will come when the social stratification of the society is brought home sharply to the child. It will reject the nurse and playmates of childhood with revulsion; not until adult, and then only if wisely educated or forced by some exterior circumstance to test its prejudices against realities, will the child overcome the revulsion of the middle period. This pattern of attraction and revulsion, though of course very much more sharply accentuated, surely bears some relationship to the normal development of a child's relationship with parents—at least in the open



society of the West—where the first unquestioning acceptance of parental values is usually followed by some revolt and then by an adult reconciliation. And an analogy lies here with a succession of relationships which has often arisen between, on the one hand, the colonizing power and the country it represents and, on the other, the people over whom rule has been asserted. Certainly in India there was a period when some of the best Indian minds sought Western education eagerly and even wished to adjust their ancient religion and philosophy to selected aspects of Christian and European thought; this was followed by a revulsion and a determination to glorify the past and to reject the West; not till independence had been achieved was a true fusion of the two approaches possible. With differences in each territory and area, the same pattern of attraction and revulsion may be seen in other parts of Asia and increasingly in Africa.

There was much in the discussion which might have led back to the main stream if it had been followed up and which clearly requires further investigation. The question of therapeutic measures was raised; the tensions and difficulties in childhood which lead to prejudice and violent discrimination are clearly similar to those which produce an almost masochistic desire to help the oppressed. Could the one be turned into the other? The point was never fully explored, but it was clear that here the discussion was on the edge of one of the basic problems of modern society; if the socially valuable individual is the product of a happy and adjusted family life, what is to be expected in a community in which many marriages are unhappy? Among the mildly prejudiced—who in Britain form the bulk of the population—education in the widest sense may do much, but unless one can assure for every child a happy family background there must always be an irreconcilable minority.

Another point which clearly has great possibilities and needs further research is the effect of linguistic and metaphorical associations. We speak of fair hair as well as fair conduct; dark deeds as well as dark eyes. The unconscious assumptions of this kind of metaphor must be immensely strong and it may be that they are stronger in the North, where fear of the dark and the long northern winter must have played a far greater part in man's past than in countries where the night is shorter and the moonlight often bright.

There were several occasions in the course of these talks when thought returned to the sexual motive in race relations; there were

those who would put sex in the same category as housing or employment, regarding the opposite sex as in each case one of the goods which the other sought. But probably more sympathy was felt with Dr. Jahoda's view that sex lies nearer than this would imply to the basic machinery of prejudice and discrimination. The need to face the question of his own identity re-awakens in every individual his own infantile desires; these were directed towards the parent, were only partly repressed and led to hunger for forbidden fruit. In some societies, the 'other' race is felt to be forbidden fruit and so desired; the desire is regarded as unhealthy, and repressed. All that is known to be wrong in oneself is attributed to others and hated in them. Apart from that, sexual success provides one of the easier means of establishing one's identity in one's own mind; the secret belief that members of the out-group have a clearer identity leads to the general belief that they are sexually superior.

There was certainly no opportunity to speculate for long on one interesting sidelight on race relations in Britain—the popularity of Indian and African doctors and the steady stream of applications for baptism and marriage in his church described by the West Indian vicar of a parish in the East of London. As for the doctors, there was a feeling that the patient might perhaps hope for a touch of some exotic magic; the wise man from the East might effect a cure beyond the reach of the more homely practitioner. Or it might perhaps sometimes be the case that in order to overcome his initial difficulties the doctor who was not a native of the country had learned to take extra trouble with his patients. And as to the priest, perhaps there was here an element of easy compensation for those who felt mildly guilty because of humiliations offered by others to West Indians.

To one point of importance the meeting referred on more than one occasion, though in slightly different forms. Dr. Vernon made the important distinction between what he described as Intelligence A and Intelligence B, between on the one hand hereditary ability to learn and the acquired skill in the use of that intelligence which is at the disposal of the mature person. Should not, it was asked, further distinctions almost as important be made? Was there not a distinction, within that part of the intelligence that was inherited, between the complex system of responses based on a nervous system which was shared with animals and something distinguishably human which involved consciousness and conscious adaptation? Might not these two depend on different sets of genes? And is there not a further

distinction to be made within the conscious part of the intelligence between the wise slow mind and the quick clever mind? Does not intelligence testing, and indeed our whole system of education, sometimes reveal and encourage mere slickness? And is there not a wisdom and an originality which does not necessarily go with either quick apprehension or good memory?

The final point emerging from this day's discussion is one of practical importance. Every speaker who expressed an opinion on the point believed that an Act providing sanctions against discrimination on grounds of race in any public institution would be of value. The difficulties that would arise in drafting were acknowledged; it would be necessary, for instance, to avoid interfering in matters of private choice or opening the way to a spate of vexatious appeals whenever an appointment was made by selection; none the less, all felt that the legal expression of the community's dislike of discrimination would be of practical benefit here, as it had been in the United States. The very type of personality most subject to feelings of personal insecurity and group prejudice would be ready to observe the law: it would be something to substitute, for the excuse:—'I dare not because of what the neighbours say', another, no less a cloak for real feelings, in the shape of: 'I dare not because the law is against it'.

In the political and administrative section, which covered roughly the third day of the symposium, there was a sharper disagreement than had been evident at any earlier stage. Though this day's talks were still concerned with the problem of unity and diversity, they came closer to the practical application of ideas to men living in present-day society. There were those who believed that within the British Commonwealth it might be possible for Britain to revive an interest in her diminishing possessions, to assert once more her waning authority and to endow her trusteeship with a new life and vigour which would be maintained until the wards were ready to manage their own affairs. To others this vision, attractive though it might be, seemed romantic rather than realistic; they felt that ignorance and apathy in Britain must be regarded as a part of the situation. Yet even here there was wide agreement as to the similarity of the situations which arise from the fact that men think of themselves in groups. Dr. Mair and Dr. Tinker alike stressed the similarity of class or religious distinctions to those which are associated with race. In Africa, forces making for unity had arisen from the growth of industry, from the universal desire for education and from

a consciousness among the educated of world-wide trends in thought and politics; yet British systems of administration had been such that by recording and perpetuating indigenous customs and respecting the ways of the people, they had encouraged a conservatism which turned on the chief and the tribe and tended to separate rather than to unite. This was one cause for the contrast, to which Dr. Mair drew attention, between the lofty and ambitious aims of African leaders, who often thought in terms of uniting present African states into wider forms of union, and the parochial attitude of their followers who sometimes claimed autonomy for units of only a few villages. This same conservative separatism was also one of the factors which would force any new African government to take vigorous and sometimes authoritarian action; it might be essential to deal with tribal divergencies with a strong hand if the new state was to be kept together. As a colonial power, Britain had laid emphasis in administration on tribal diversity, France on cultural unity; the ideal perhaps lay between these different emphases, yet how sharp is the dilemma which confronts a colonial power! If the path inclines to one side, indigenous institutions are being obliterated, it will be said, by a ruthless steam-roller; if to the other, the people are being preserved as curiosities in a museum.

As these pages are written, I have been reading a manuscript dealing with the partition of the Punjab in 1947. The backcloth is gradually unrolled to the slaughter of many thousands, to the uprooting and homelessness of millions, and with each succeeding scene the reader is left with an almost unbearable feeling that the misery was inevitable, that nothing could have been done to prevent it. From each apparently critical point, at which one can perceive today the mistakes that were made—the obstinacy and arrogance that prevented compromise, the lack of imagination which failed to be firm on this point, to surrender on that—again and again the reader with an historical sense is driven back a further stage, forced to recognize an earlier crisis and perhaps another behind that, each in turn leading to its successor. If Jinnah or Gandhi or Wavell had done this or that, one begins to say—and then it becomes clear that what had been done two years earlier had ruled out that possibility. The Western mind is increasingly given to a mechanical form of diagnosis for human problems; just as an obstruction in the flow of petrol or a dirty sparking plug is detected as the reason for an engine's failure, so one factor is picked out from a political or

historical complex, and yet basically something more than a single act of one statesman is always involved. It is the 'we-ness' and 'they-ness' of the two parties to the conflict that really needs to be understood; that is as basic to the scene of turmoil as petrol vapour to the engine's power. It was for an understanding of we-ness and they-ness that we were groping throughout this symposium. In a healthy state, the sense of belonging to a smaller group will not be lost; indeed, surely it is the mark of a healthy and tolerant state that it is possible to belong to a great number of different groups which are not exclusive, which overlap and underlap and cross each other. And in the international field the growth of such groupings between nations is one of the few encouraging signs. It is in the sense of we-ness and they-ness that the greatest danger to mankind lies and yet is by this very sense that all progress has been made in the past and will continue to be made in the future.

How little we know! And yet enough to be dangerous, in that what we do know is so varied that we specialize and each forgets what the other is doing. The final lesson of this discussion must surely be that there is a continual need to turn back from the abstraction which is involved in specialization and study the infinitely complex field of a single real situation, and here no one cause or principle will explain any one phenomenon, nor can any one approach be right to the exclusion of others. Ideally, what we need is a team to study each community with which we are concerned, in which the work would be shared between representatives of all those disciplines of whose contribution we have heard. But even then we shall be faced with the difficulty of finding a reader prepared to follow us in so composite an undertaking.

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*Note.* This list of books and articles does not profess to be a complete bibliography but does include the main sources cited in the various papers and some suggestions for further reading.

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# Appendix

## PROGRAMME

### ROYAL ANTHROPOLOGICAL INSTITUTE

21, Bedford Square, London, W.C.1

and

### INSTITUTE OF RACE RELATIONS

6, Duke of York Street, London, S.W.1

### SYMPOSIUM ON RACE AND RACE RELATIONS

7th, 8th and 9th January, 1959

to be held at

The Royal Anthropological Institute

#### January

- 7th 10 a.m. Professor Lancelot Hogben, F.R.S.  
*The Race Concept: A General Survey of Thought on Race*  
N. A. Barnicot, B.Sc., Ph.D.  
*From Darwin to Mendel*  
COMMENTATOR: J. Maynard Smith, B.Sc.
- 2 p.m. G. Ainsworth Harrison, M.A., D.Phil., B.Sc.  
*The Biological Effects of Miscegenation*  
COMMENTATOR: J. S. Weiner, M.A., M.Sc., Ph.D.,  
M.R.C.S.  
J. A. Fraser Roberts, M.A., M.D., D.Sc., F.R.C.P.  
*A Geneticist's View of Human Variability*  
COMMENTATOR: D. F. Roberts, M.A., D.Phil.
- 8th 10 a.m. Professor P. E. Vernon, D.Sc., Ph.D.  
*Race and Intelligence*  
Marie Jahoda, Ph.D.  
*Race Relations: A Psycho-analytical Interpretation*  
COMMENTATOR on both Professor Vernon and Dr.  
Jahoda: N. Hotopf, M.A.
- 2 p.m. D. G. MacRae, M.A.  
*Race and Sociology*  
COMMENTATOR: Kenneth Little, M.A., Ph.D.

Maurice Freedman, M.A., Ph.D.

*Race Relations in Modern Britain*

COMMENTATOR: Sheila Patterson, M.A.

9th 10 a.m. Professor Kenneth Kirkwood, M.A.

*Darwin and Durham: Some Problems of Race and Politics  
in the Multi-racial Societies of the Commonwealth and  
Colonial Empire*

COMMENTATOR: George Bennett, M.A.

Lucy P. Mair, M.A., Ph.D.

*Race, Tribalism and Nationalism in Africa*

COMMENTATOR: Roland Oliver, M.A., Ph.D.

Hugh Tinker, M.A., Ph.D.

*Race, Nationalism and Communalism in Asia*

COMMENTATOR: Francis J. Galbraith, B.A.

3 p.m. GENERAL SUMMARY: Philip Mason, C.I.E., O.B.E.



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